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ABSTRACT

This meeting on the retrospective conversion (RECON) of music materials brought together 21 individuals to plan the integration and coordination of RECON activities within the context of the music library community. Major music societies and professional music groups were represented as were music faculty and composing communities. This document reports the activities of and recommendations resulting from the meeting. Participants were prepared for the discussion by five position papers: (1) "Names of Persons and Organizations Associated with the Musical Creation" (Richard P. Smiraglia); (2) "Retrospective Conversion of Subject Headings and Series" (Catherine R. Garland); (3) "Uniquely Musical Access Points (Coded)" (Arsen Ralph Papakhian); (4) "What Can Be Accomplished at the Terminal?" (Connie Field); and (5) "Post Input Authority Work for Retrospective Conversion of Bibliographic Items for Music: What Are the Possibilities?" (Ed Glazier). Three subgroups were formed to address the issues raised in the position papers and to discuss the organizational questions posed by the desire to coordinate the efforts of AMLG (Associated Music Libraries Group) and REMUS (a committee of the OCLC Music Users Group). Their individual recommendations and a summary of the group recommendations are included. A meeting agenda, a list of participants, a worksheet on standards for retrospective conversion, and a summary of the Retrospective Conversion Meeting are appended. (THC)

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RETROSPECTIVE CONVERSION OF MUSIC MATERIALS

Report of a meeting sponsored by the

Council on Library Resources

July 18-19, 1984
Wayzata, Minnesota

Compiled and Edited by

Dorothy Gregor

Bibliographic Service Development Program

Council on Library Resources, Inc.

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OVERVIEW

Immediately following a three-day conference on retrospective conversion (RECON)[1] focused on the needs of research libraries, a group of twenty-one individuals met at the same conference site, the Spring Hill Conference Center, Wayzata, Minnesota, to plan the integration and coordination of RECON activities within the context of the music library community. All of the major societies and professional music groups were represented as were music faculty and composing communities. The recommendations of the preceding meeting formed the immediate background against which the subsequent discussion took place.

It was hoped that the recommendations of the general meeting would provide a framework for developing a coordinated music RECON effort out of at least two different efforts. The two groups, REMUS, a Committee of the OCLC Music Users Group, and the Associated Music Libraries Group (AMLG), demonstrated a willingness to find a way to work together toward a joint RECON program for music materials.

The participants were prepared for the discussion by five position papers presented and briefly discussed on Wednesday afternoon, the first day of the meeting. Wednesday evening was devoted to small group discussions, some of which lasted well into the night. The small groups continued Thursday morning, each dealing with identical agendas, and they produced similar

recommendations. During the closing Thursday afternoon session the whole group worked on a CLR staff prepared synthesis of the small group discussions until the synthesis came to represent the recommendations of the meeting. The results are summarized in Chapter 8.

[1] Retrospective Conversion, report of a meeting sponsored by the Council on Library Resources, Wayzata, Minnesota, July 11-18, 1984. Compiled and edited by Dorothy Gregor. Washington, D.C.: Council on Library Resources, 1984.

PREFACE

There are many worlds of scholarship, each with its own structure, its own way of working, and, from the library point of view, its own requirements for resources, bibliographic systems, and specialized services. At the same time, there is also a single world of scholarship where the many parts come together with shared goals and common needs, the most important of which is ready access to all recorded information regardless of subject, format, or location.

The requirements of each discipline need to be taken seriously by librarians if the work of individual scholars is to flourish. By the same token, scholars and librarians alike must make certain that the specifications of their own disciplines do not block the bibliographic paths that link the segments of the record into a cohesive whole.

The discussions reported here were designed to find a reasonable way to strengthen the bibliographic structure for music. Following as this meeting did on another concerned with expanding the machine-readable database of bibliographic information in all fields, there was an exceptional opportunity to meet the specific requirements of the music world and simultaneously to strengthen links with our emerging comprehensive bibliographic structure, to the ultimate benefit of the "one world" of scholarship and learning.

The participants in the meeting are to be congratulated on the skill with which they resolved their own points of difference and on their absolute commitment to the principle that their own efforts should enhance the broader purpose of a cohesive bibliographic system for the country. And, once again, the CLR staff has demonstrated its ability to assist those who are willing to try to make a difference. This is often the most useful thing the Council can do.

Warren J. Haas

CHAPTER 1

INTRODUCTION

1.1: Opening Remarks

Lee Jones welcomed the group and provided the background for the Council's invitation to meet at Spring Hill. He explained that the Retrospective Conversion of Music Materials Meeting had been called as part of the Council's Bibliographic Service Development Program (BSDP), a program directed at the creation of a logical, consistent national database for library users. The prospects for a national retrospective conversion program were discussed by the BSDP Program Committee early in its history, but committee members, for the most part, felt that the opportunities for action at the national level had been lost. However, Jim Govan, from the University of North Carolina, kept the topic on the BSDP agenda, reiterating its importance, particularly for research libraries but also for smaller academic and public libraries. About two years ago he succeeded in convincing the Committee that there was a need to assess the status of retrospective conversion and to determine whether or not there was a reasonable chance for developing an organized approach to a national RECON program.

The results of that assessment were documented in a report prepared by Jutta Reed-Scott, Dorothy Gregor, and Charles Payne, entitled Issues in Retrospective Conversion. (Copies of the Report had been sent to each of the

music meeting participants.) CLR felt that the RECON Report warranted a meeting to discuss it and began preparations for the Spring Hill RECON meeting held earlier in the week. At nearly the same time the Council received two proposals relating to the retrospective conversion of music materials, one from the Associated Music Libraries Group (AMLG) and one from REMUS. CLR staff reviewing the two proposals felt that the efforts could benefit from coordination and decided that it would be useful to convene a group of people to discuss what might be done about retrospective conversion for music materials. Consequently the original planning for a Retrospective Conversion Meeting was extended to include a Retrospective Conversion of Music Materials Meeting as a follow-up session.

Jones indicated that the objectives of the music RECON meeting were to explore the possibilities of a coordinated effort between AMLG and REMUS and, if coordination seemed possible, to outline the nature of the cooperative effort and the standards for music RECON. As part of the background for this meeting, Lee summarized the recommendations of the immediately concluded Retrospective Conversion Meeting (see Appendix C). He then asked Mike Keller from AMLG and Richard Jones of REMUS to provide additional background on the two projects.

Mike Keller had attended the earlier meeting and conveyed to the music group the encouragement of the RECON meeting participants to proceed without waiting for the development of a more general national program. He reiterated the need for the development of a logical, consistent national database, that is, a national database that would not necessarily exist as one physical

database, but one that could be developed in a decentralized mode and linked through the Library of Congress distribution service and, at some future time, through the protocols of the Linked Systems Project. Keller saw LC's willingness to participate as the key to the music community's being able to work together on a coordinated RECON project.

AMLG is currently made up of seven music libraries--those of Harvard University, Yale University, the Eastman School of Music, Indiana University, the University of Illinois at Urbana-Champaign, and the University of California, Berkeley. The AMLG goal is the retrospective conversion of manual catalog records to machine-readable form. AMLG's explorations of how to accomplish this goal had led to the proposal to CLR for a planning grant to develop a methodology. AMLG had been aware of the REMUS efforts and was concerned not to duplicate them. Keller concluded with the thought that perhaps the discussion should not be about two separate projects, but about something that they might call "MUSCON" or "CONMUS," denoting a national project parallel to the CONSER project for serials conversion.

Richard Jones explained that REMUS is an acronym for "retrospective music." In early 1980 the OCLC Music Users Group formed a committee to investigate why there were so few music records in machine-readable form. The committee was charged with investigating possible ways of increasing the national music database, to develop a project plan, including the selection of participants in the project, and to seek funding for the effort. In 1983 twelve participants were selected out of 149 applicants. Selection criteria included the willingness to abide by REMUS standards and procedures, the

quality of institutional cataloging, collection strength, and size of collection. There was also an attempt to balance types of collections among the participants. The twelve selected were the University of California at San Diego, Oberlin, the New England Conservatory, the University of Louisville, the University of Illinois at Urbana-Champaign, Indiana University, Eastman School of Music, the University of Texas at Austin, the University of New Mexico, University of Virginia, and two branches of the University of Wisconsin, at Madison and Milwaukee. Jones noted that there were three institutions who were members of both REMUS and AMLG.

In May 1983 the OCLC Music Users Group defined three REMUS projects and appointed Richard Jones REMUS Director. The projects were conceived as separate, so they could be put in place as resources became available, but were nonetheless coordinated. The goal of the first project is to enhance the music bibliographic data that was already available in the OCLC database. "Enhancing" includes the addition of every field appropriate to the record with cataloging done to AACR2 standards. Seven of the twelve libraries began the enhancing work on OCLC in June 1984.

The goal of a second project is to assist the Library of Congress in building a national name authority file that would include a large number of authorized headings for persons, organizations, and uniform titles associated with musical works. Jones reported that he had completed training in name authority work as part of the NACO project at LC and, once he has been granted "independent" status by LC, he will be responsible for training other REMUS members with the expectation that the name authority part of REMUS will be

fully operational in about a year. LC is treating the REMUS libraries as one group, and Jones will be responsible for submitting authority work from the REMUS group to LC. REMUS is looking forward to the possibility of doing name authority work over the Linked Systems Project.

The third REMUS project is to increase the national database of machine-readable records for music through various retrospective conversion projects. Two REMUS libraries and possibly a third have started RECON test projects this summer. These three libraries had some funding available and wanted some data from which to evaluate costs and procedures associated with RECON. The University of Wisconsin at Milwaukee began three weeks ago, Oberlin began five weeks ago, and the New England Conservatory was scheduled to start the week of the conference (July 16). These three trial efforts are not special projects in the usual sense, but are dedicating some amount of time each day to RECON, doing both copy cataloging using the ENHANCE function on OCLC and original conversion of records not previously in machine form.

Funding for the REMUS ENHANCE project comes from OCLC and, to some extent, from the OCLC Music Users Group. Jones' travel expenses for NACO training were supported by the Council on Library Resources and OCLC, with the Library of Congress providing the actual training and the staff to input the REMUS records to its Name Authority File. Funding is being sought for the other RECON projects, and there is a commitment of over three quarters of a million dollars from the institutions who will be doing the work.

1.2: General Terms of Reference for Retrospective Conversion of Music Materials Meeting

The general terms or guidelines listed below were prepared by Michael Keller and Richard Jones and provided to the authors of the five position papers and to the other meeting participants to provide a common framework for the development of recommendations concerning standards for a retrospective conversion of music records.

1. The conclusions of this meeting are likely to provide the fundamental standards for the retrospective conversion of music materials in projects of all sizes, from local efforts to massive national cooperative endeavors.

2. Every effort should be made to develop standards for a consistent file of bibliographic data.

3. All MARC fields that are input should be encoded fully and completely.

4. High productivity and efficiency are major considerations.

5. Work should be done without having to examine the piece.

6. We expect to define the difference (or border) between retrospective conversion and recataloging.

7. The deliberations of this meeting should not be focused on local institutional practices and considerations, but on the development of standards to be used in sharing information on a national level.

8. The standards to be discussed at this meeting are being developed for national cooperative projects, but may have utility in other projects as well.

9. For the most part this meeting will deal with access points and forms of entry rather than with bibliographic description.

With these general terms of reference and the Retrospective Conversion Meeting Summary (Appendix D) providing the context of the continuing discussion, the group turned next to a review and discussion of the position papers.

CHAPTER 2

Position Paper No. 1:
Names of Persons and Organizations Associated with the Musical Creation
Richard P. Smiraglia

This paper addresses authority control issues within the broader context of the retrospective conversion of music bibliographic data. My intention is to explore musical works and the ways in which access is provided to them via name and name/uniform title combinations. I will look first at the current standards for access to musical works in Chapter 21 of AACR2: "Choice of entry." I will look also at issues in authority control. Along the way I will present four specific recommendations for conversion of access points.

Before I start I will make one brief comment on the issue of access to musics other than Western art, specifically, to the recordings of ethnic musics. For these the primary access is not through name/uniform title headings, but through term indexing (subject headings) that identifies the geographic area, culture groups, etc. I bring this up only to note in passing that the scope of my paper, "names of persons and organizations," does not cover all the issues of access to music materials.

AACR2 recognizes the distinction between the item or object being cataloged, for which a description is prepared, and the intellectual content,

for which access points in the form of name and/or title entries are provided. The various kinds of names used as access points are all names of persons or bodies associated with the creation of the intellectual content of a work. For any given object (or bibliographical entity) several layers of responsibility may exist. There are those who originated the work, those who have modified it, those who have dealt with it in some way for the present publication. By making entries under all such names we satisfy two of Cutter's "Objects",1 namely to show what the library has by a given author, and to enable a user to find a work for which the name of a responsible party is known.

Additionally, we use uniform titles to identify specific works and/or manifestations of those works, thereby satisfying another "Object," that of enabling users to choose a work by its edition (by bringing together in one sequence all editions and manifestions of a given work). Finally, we use entries formulated from titles proper of the cataloged objects to provide access to the specific objects (the title of an object being its name). Occasionally in music these titles coincide with the name of the work contained. An edition of Weill's Dreigroschenoper with the German title, for example, is an object whose name happens to coincide with the uniform title for the work.

The following kinds of entries are specified by AACR2 as access points for musical works. In the best of all possible worlds all of them would be used whenever applicable. With a few exceptions, such as editors and translators, which are now used more frequently than in the past, all of these

kinds of names and titles have been specified as access points in the three major cataloging codes of this century--ALA, AACR, and AACR2.[2]

Personal author, hereafter Personal composer (21.1A2)[3] is the person chiefly responsible for the creation of the intellectual content of a work. A personal composer, when one exists and is identified, is usually a main entry. For musical works in the Western art tradition, a uniform title derived from either the composer's original title or the title proper of the first published edition of the work accompanies most names of personal composers. Such name/uniform title combinations should be thought of as a unit since in reality they are together the name of the intellectual entity or work. Beethoven's Fifth Symphony is a specific intellectual entity (at least it started out as one), and in library catalogs that entity is easily identified by the name/uniform title combination: Beethoven, Ludwig van, 1770-1827. Symphonies, no. 5, op. 67, C minor.

Joint composers rarely exist, but when they do they are used as added entries (21.1A2, 21.30B).

Compilers of anthologies, including collectors of field recordings, are given added entries (21.7, 21.30D). In earlier codes compilers were sometimes considered to be the authors of their compilations, in which case they were given main entry status.

Arrangers and/or transcribers, which depending on the circumstances may or may not be the same thing, receive added entries for the works they

have arranged and/or transcribed. Their intellectual contribution is recognized, but their added entry status shows that their modifications of other works are still considered to be manifestations of the original works (21.18B).

Adapters are given main entry status, the gist of the rule being that only the idea behind the original work remains; therefore the adaptation is considered to be an entirely new work for which the adapter is chiefly responsible for the intellectual content (21.18C, 21.19B).

Authors of texts are the closest we come to true joint composers (except, perhaps, for pasticcios or musical revues). They receive added entries whenever their contribution is fully represented in the item cataloged (21.19A).

Editors are always given as added entries (21.30D), as are translators (21.30K). It is commonplace in AACR2 to make an added entry under the name of any editor or translator whose name appears in the bibliographic description. In earlier codes the cataloger's judgment of the importance of an editorial contribution entered the picture, so not all editors were given entries in earlier catalogs. Translators were usually traced if they had translated a reasonably substantial work, such as an opera, but not if they had translated only the words of a single song. Although AACR2 seems to preserve this option, it does not apply to translators of verse (21.30K1a).

Corporate bodies are sometimes present in printed music. Most frequently they appear as part of series entries, which are outside the scope of this paper. Sometimes corporate names such as "Catholic Church" are used in the position of personal composer for works that have official status as liturgy of that body (21.22). More rarely, names of performing ensembles are used as added entries for pop folios. Usually the folios are printed versions of recorded works performed by those bodies, and the entry is made under the AACR2 rule that prescribes an added entry for a prominently named corporate body (21.30E). Corporate bodies are also used in uniform titles for manuscripts that are not known by title (25.13).

Personal composer's/uniform titles are used for sound recordings as well. When only one work appears on a recording or when all the works on a recording are by the same composer this heading will be the main entry (21.23A-D). When a recording is an anthology these headings may appear as analytical added entries (25.25-25.36RI, 21.7RI). Usually the decision about when to make analytical added entries is an economic one. Most codes rely on a rule of three, that is, three or fewer works should be entered individually; more than three are usually disregarded. The Library of Congress will make up to 25 analytical added entries for some types of sound recordings (as yet unspecified by the Library). OMRAC (OCLC Musical Recordings Analytics Consortium) libraries, of which there are usually about a dozen, will make as many analytical added entries as it takes to index fully the intellectual content (that is, the written intellectual content) of a musical sound recording.

Principal performers are used as entries for recordings of their performances. They receive main entry for anthologies with collective titles (21.23C) and for anthologies of musics other than Western art that have no collective titles (21.23D). They receive added entries on all other types of recordings (21.23A-D). Only principal performers, those who receive prominence in the layout of the recording and those who perform major roles on the recordings, are traced. In general, the members of an ensemble that has a name do not receive separate entries. Except for jazz, members of ensembles that do not have names but should have, also do not receive entries. In jazz works, people in this latter category, usually identifed on recordings as "His band," do receive added entries. Separate entries for the chorus and orchestra of an opera house are not given when both perform together, the name of the parent body being preferred. And composers who also perform their own compositions receive two entries, one as composer and another as performer.

Conference names are sometimes used as main entries for recordings that purport to present the proceedings of a conference (more likely a music festival) and as added entries when the music present is derived from that conference or festival (21.1B2d).

The remaining entry is the title proper, which is always traced as an added entry when it is distinctive and usually not traced when it is the name of a type of composition.

All of the entries on my list, with the possible exception of corporate names in uniform titles for manuscripts and conference names, are

likely to appear with some regularity in the cataloging that we will be attempting to convert to machine-readable form. We do not know what the frequency distribution of such headings would be in any music catalog, nor do we know how many of what kinds of headings appear together in typical bibliographic records for music materials. Because chief responsibility for the intellectual content is not easily designated for most musical objects (witness the resort to typography in determining whether or not a recording has principal performers, or the rules that say an arranger is not chiefly responsible but an adapter is), it seems unlikely that a workable hierarchy of types of headings to include for conversion could ever be designed, let alone agreed to, by music librarians.

Therefore, I recommend the following approach, which includes something of an economic compromise:

1. There should be no alterations made in the choice of entry. In the machine environment there is no reason for any entry to be designated as main entry. As far as indices are concerned, all headings are created equal (as long as they are properly encoded). Entries can be input as they appear in existing cataloging, regardless of their type or the position they would be assigned under AACR2 rules for choice of entry. So, I do not advocate full AACR2 cataloging. By abandoning choice of entry I am advocating the inputting of records that would be judged incorrect in the current machine-readable cataloging environment where most of us try to input cataloging prepared according to the announced policies of the Library of Congress. I also do not

advocate any alterations in descriptive cataloging, but that is outside the scope of this paper.

2. All headings appearing on existing cataloging should be input in the converted record, so that we provide as much access as possible to the scholarly content of the collections. Some types of headings used under previous sets of rules but that can no longer be verified in an AACR2-based authority file would have to be dropped. These are few in number and should not present a significant procedural problem.

3. Do not attempt to supply names/uniform titles that are not present in the existing cataloging. If, for example, only some editors and translators were traced under AACR, we will save time and money by simply accepting those decisions and not attempting to supply headings that are not there. This approach will also mean that, in most cases, professional intervention will not be required to convert existing cataloging to machine-readable form. I recommend one minor exception--that we make as many additional title added entries as are currently required by Library of Congress guidelines. In some libraries no title added entries were used or, at least, very few were used, in order to save space in the card files. This severely limits access to the bibliographic objects, and correcting the situation should not be a serious problem. Most title added entries are defined by the first indicator and the first subfield code in field 245. These indicators will have to be present in the machine records anyway.

These last two points mean that sound recordings that were previously analyzed should be input with all their headings, but those that were not analyzed should not now be analyzed as part of the conversion process. It should be clear that the investment of professional time and authority control resources required to provide those analytics would be prohibitive. Also, there is some hope for increased analysis of sound recordings in the OCLC database as OMRAC continues and as REMUS progresses. Both groups are committed to providing full analysis of sound recordings.

Now let's look at some authority control issues. Some of these issues involve decisions about the procedures and functions of a national coordinated conversion effort that are outside the scope of this paper, but I will touch on them briefly.

I believe the present authority control structure is sufficient to enable us to undertake a massive conversion effort. By authority control structure I mean the Library of Congress Name Authority File as the chief governor of forms of entries, coupled with the national network of authority record contributors known as NACO. When the REMUS component of NACO is fully operational there will be approximately a dozen major music libraries representing a broad diversity of music collections assisting the Music Section at the Library of Congress in building the Name Authority File. We cannot be certain how much or in what directions the authority database will grow with the addition of the REMUS libraries, but quick and dirty surveys of REMUS libraries indicate that, working in concert with LC, they will be able

to broaden the base of authority data available to all of us. This brings me to my final recommendation:

4. In the course of inputting bibliographic records, all headings should be matched against the LC Name Authority File. If an AACR2 form is available, it should be substituted for the pre-AACR2 form on the existing cataloging. For headings not found in the LC file I recommend adding them to the database as they are.

This recommendation means that the utilities would have to reach agreement among their members on the addition of pre-AACR2 headings to their databases. There could be several approaches to this problem. A RECON level could be developed for the encoding level fixed field (Leader byte 17)4 to indicate that the record was a conversion record and the headings were mixed. Such a code might also be appropriate for the descriptive cataloging form fixed field, Leader byte 18. Something like OCLC's subfield "w" (an indicator and two character code appearing in conjunction with all headings used to indicate the source of the headings) should be developed to show which headings in such a "mixed" bibliographic record were AACR2 and which were not. Obviously, these suggestions would require changes to the MARC format, but since neither is a need peculiar to music, and since both would be helpful in any kind of conversion project, there may be support for adding them to the format.

Another approach would be to use the descriptive cataloging form fixed field to indicate pre-AACR2 and simply enter all headings in their existing

forms. This would be even simpler than the mixed approach, but would tend to proliferate parallel files of the same works because of the number of AACR2 headings used in music that are distinctly different from their pre-AACR2 predecessors.

This is where procedural matters come into play because the ultimate decision will depend on the technology employed. For example, if OCLC or RLIN were used, something like the changes I just suggested for the MARC format will be required to enable system users to make profitable use of the converted records, and also to keep the mixed records from creating chaos for searching, indexing, etc. On the other hand, if an authority system like WLN's were used, these problems would be less significant, because headings are stored only in the authority file and are therefore easier to change. Subsequent name authority work through NACO would probably resolve the problems of mixed records over time. If an off-line system is used to enter records not matched in any database, then no checking would have to be done as part of the conversion process since tapes produced off-line could be run against the LC Name Authority File prior to being loaded in the major databases. This would probably be the most economical choice. (Perhaps one set of keyers could add holdings to existing machine records and flag the card catalog records for which no match is found. A second set of keyers could enter the flagged records off-line.) So you see, decisions about these kinds of procedural matters will greatly influence our ability to arrive at workable standards for the bibliographic component of a conversion effort.

I have not yet discussed minimal level cataloging because I do not agree with the approach taken by most administrators. I think that much of the detailed pseudo-bibliographical work that we do for descriptive cataloging is really useless to library users. But I firmly believe that access issues are critical. They form the indexes to our collections. And I do not think we will be any farther ahead if we simply convert our card records to machine-readable records that have no index entries. I compared the fields used for access points (100, 110, 130, 240, 245$a, 700, 710, 711, 720, 740) in three standards: the National Level Bibliographic Record--Music, the proposed RLG base level cataloging--music, and OCLC's Bibliographic Input Standards. What I found is not really remarkable. All access fields are "mandatory if applicable" for full cataloging in all three. The 245$a, of course, is the title proper and is "mandatory" in all cases. For minimal level records, the NLBR--M designates all secondary entries as "optional" data. The RLG proposal sets no standard for secondary entries but does make the 240 "mandatory if applicable." The OCLC minimal level standard lists all access points except the 240 as "required if applicable or readily available." I stand firmly behind my belief that all access points must be provided if they are present in existing card catalog records. I endorse a minimal level approach to descriptive cataloging, perhaps including only those elements required for an AACR2 Level 1 description.

1Cutter, Charles A. Rules for a Dictionary Catalog. 4th ed., rewritten (Washington, D.C.: Government Printing Office, 1904).

2A.L.A. Cataloging Rules for Author and Title Entries. 2nd ed., edited by Clara Beetle (Chicago: American Library Association, 1949).

Anglo-American Cataloging Rules. North American text (Chicago: American Library Association, 1969).

Anglo-American Cataloguing Rules. 2nd ed., edited by Michael Gorman and Paul W. Winkler (Chicago: American Library Association, 1978).

3Numbers in parentheses refer to chapters and sections of AACR2

4Cf. MARC Formats for Bibliographic Data (Washington: Automated Systems Office, Library of Congress, 1980).

DISCUSSION

The discussion that followed centered on the feasibility of using some post-conversion machine matching techniques to upgrade non-AACR2 headings to AACR2 form. Difficulties in dealing with uniform titles during the OCLC machine flip to AACR2 headings were mentioned, and the OCLC representative indicated that there had been some machine manipulation of uniform titles, particularly in changing singular forms to plural, but that there had not been any attempt to compare uniform title headings and upgrade them automatically. The group agreed to postpone further discussion until after the paper on this topic had been presented later in the afternoon.

CHAPTER 3

Position Paper No. 2:
Retrospective Conversion of Subject Headings and Series

Catherine R. Garland

The other traditional access points for music bibliographic records are subject headings and series. Although they are important for access to music materials, their value can be judged only in relation to other access points and the cost of providing such access. To state a basic "position" for the discussion which follows: I agree with the conclusion reached in the RECON Report that "the creation of full MARC records is the most desirable approach and ensures quality and completeness of the converted records."1 In preparing this position paper I have tried to balance this approach with the "General terms of reference" for this meeting: that we are attempting to provide standards that will allow for consistency in the file, while keeping in mind the necessity for maintaining high productivity and efficiency as well as the ability to do this work without examining the item. My considerations and suggestions assume that the record as it is first converted must stand. I have not considered the possibility of global changes taking care of changes not made during conversion, preferring to specify the creation of the best possible machine-readable record the first time any given record is handled.

Music libraries contain a wide range of library materials--books and serials as well as printed and manuscript music and sound recordings. It is difficult to speak of these as a body when discussing access. For music books

and serials the importance of subject access is the same as for all other subject areas. Ruth Carter's Data Conversion2 cites CLR-funded research on public use of online catalogs indicating that more than 50 percent of the searches in the online catalog were subject searches. While all these searches were not necessarily made using subject headings (some searches used keywords from titles or other parts of the record), the findings nevertheless indicate the importance of subject retrieval. Text searching, where available, can also be used for topical searches. For the controlled vocabulary to guide these searches, subject headings are still needed.

For printed music and sound recordings subject access is likely to be less important than access by composers and titles. Access through "subject" headings, in most instances, is actually through the musical form or the performing forces required. There are exceptions, notably for ethnomusicology materials and collections that emphasize a period or place. Access to these materials through the controlled vocabulary provided by subject headings is also needed.

Name headings used as access points elsewhere in the bibliographic record have already been discussed. Aside from the general question of the importance of converting subject headings, name headings will not be covered further here; the focus will be on topical headings.

In discussing the retrospective conversion of music subject headings, the first thing to note is the difference in existing standards for subject and descriptive cataloging: First, Library of Congress Subject Headings

(LCSH) may not have as wide acceptance nor as wide use as AACR2; second, there has not been the same widespread information in the form of published rules and rule interpretations that, theoretically, enable catalogers to construct identical headings. Subject cataloging is more of a (no pun intended) subjective process.

In any event, since we are looking for a standard, LCSH is likely to be the choice. Steps have been taken and are being taken to make LCSH and LC subject cataloging policy documents more widely available: the microfiche version of the subject headings list has been published quarterly for several years, making new subject heading information available in a more timely manner. Work is progressing, slowly, on the online subject authorities file. And, recently, portions of the LC Subject Cataloging Manual have been published. These steps should help in standardizing subject cataloging practice. A manual of music subject cataloging practice using LC classification and subject headings is in the preliminary stages of preparation by the Subcommittee on Subject Access of the Music Library Association's Bibliographic Control Committee.

Leaving the question of access to information about the latest form of subject headings and procedures for formulating new headings, the question then becomes, should the headings be updated? And, if so, how? In an ideal world, where time and expense are of no concern, the headings should be converted into the latest form published in LCSH or they should be created in the form specified by the Subject Cataloging Manual. How much effort would this require? The changes that have occurred in subject heading practice have

been principally in subdivision practice; examples are the changes from direct to indirect subdivision some years ago and the overhaul of ethnomusicological subject headings made over the last few years. These are the kinds of changes that might require work by the cataloger in establishing or confirming the latest form of heading.

Luckily, many subject headings used on music and sound recordings describe the musical form or performing forces and, generally, these can be converted with no change. Changes in subdivision practice over the years could be handled in a fairly mechanical way; the inputter could be taught to delete "To 1800" and add "Scores and parts" (and similar subdivisions) as encountered in keying.

What if there is no LCSH-based subject heading? They would ideally be assigned at the time of conversion. However, this should not be required; it should also be acceptable to enter the record with no LCSH-based subject headings. Locally created non-LCSH headings could be input or not, based on the policy of the library converting the record. The USMARC format provides for such local subject headings in the 69X fields. Local headings input for a retrospectively converted record might provide valuable access to searchers, particularly in the absence of other subject headings.

The final aspect of this discussion on converting subject headings is the cost of the conversion in relation to the benefit. How important are subject headings for music materials? For books, subject headings are important for access to the contents in some uniform manner. For music and

sound recordings, subject access, which is generally not topical, is somewhat less important than access by the name headings associated with the work.

Turning from subjects to series, it is clear that series represent an important point of access for music materials; this is evident in the National Level Bibliographic Record--Music, in which series are mandatory data elements both in full and in minimal level records. Assuming that we agree that all access points must be in AACR2 form, it is also evident that the conversion of series will require more work than the conversion of subject headings because 1) series practice has changed over the years, and 2) the existing authority file for series is relatively small; it contains only series established, or re-established, since January 2, 1981 (Day 1 of AACR2). Further, present cooperative authority projects do not include series authorities. This means that there will necessarily be a great deal of original authority work involved in series conversion.

The series conversion process has two aspects: the conversion of the series statement and a decision on series treatment and form of tracing. Looking at older cards one sees an interesting variety of statements, representing half a century or more of descriptive cataloging practice, which may or may not be considered series under AACR2. The most significant change affecting the conversion of series statements occurred under AACR2, namely the transcription of all series with title first, and with statements of responsibility, as appropriate, transcribed following the title. Other visible changes are ISBD punctuation and the amount of information given in the series statement.

The conversion of various types of series statements must include provision for the following cases:

1. Publishers' numbers. For many years publishers' numbers, which in AACR2 are recorded as notes, were considered series. These can be automatically converted as notes and recorded in field 028 rather than converted as a series.

2. Added title pages. Other statements began "Added t.p.:"; they were sometimes traced and sometimes not traced. If it can be determined that these statements were later treated as series, and that this treatment should continue, the legend "Added t.p.:" can be dropped; otherwise, the statement should be recorded as a note.

Under pre-AACR2 rules, series that were to be entered under an author's name were transcribed in the series statement with the author's name in catalog entry form as the first element of the statement, followed by the title. If the series author was the same as the main entry of the item being cataloged, the appropriate pronoun--His, Her, or Its--was substituted for the name. AACR2 requires that the series statement be transcribed beginning with the series title, followed by the statement of responsibility when appropriate. To convert such series, the item should be consulted to see how the statement of responsibility should be transcribed, since under previous rules, statements of responsibility were not always included in the body of the entry. This would be a reasonable approach only if the item were being

recataloged. There are two more reasonable approaches, neither completely satisfactory: 1) convert only the title portion of the series statement, omitting any statement of responsibility. This would lead to series statements like "(Works ; v.6)," not meaningful without the composer's name; 2) include the composer's name in its current catalog entry form in the AACR2-prescribed position as a statement of responsibility. This would result in an entry such as "(Works / Johann Sebastian Bach ; v. 6)," which, although not exactly according to AACR2, is at least meaningful.

Other problems in transcribing series statements are more or less mechanical: ISBD punctuation can be substituted for the punctuation presently in a pre-ISBD series statement. This is a situation where less than perfect results are acceptable. The ISSN, when present, can be switched to its AACR2-prescribed position. Otherwise, series statements should be converted with as little change as possible, accepting abbreviations, ellipses, or subtitles and other information that would be transcribed differently, if at all, under current rules.

With regard to the MARC coding of series statements, only the 440 and 490 fields are used in AACR2 records. Field 440 is for series that can be traced exactly as transcribed and field 490 for series that are untraced (first indicator position is 0) or traced in a form different from the transcribed form (first indicator position is 1). Some changes have been made in subfielding and fields 400, 410, and 411 are not valid for AACR2 records. The appropriate series tracings will be in fields 800, 810, 811, and 830.

In considering whether series should be traced, it is interesting to note that there are only a few types of series that are not traced under AACR2 (at least under LC's interpretation of AACR2). This seems to bear out the importance of providing series access. Only four types of series are specified as routinely being left untraced:

1. Series in which the items are linked only by common physical characteristics;

2. Series in which the numbering suggests that the parts have been numbered primarily for stock control or to take advantage of a lower postal rate;

3. Series published by a commercial publisher in which the title conveys little or no information about the content, genre, audience, or purpose of works in the series.

Even with these four types of untraced series there is still a provision for tracing one of these types when there is any doubt. Given the changes in series practice over the years, one of the first decisions we must make is whether to reconsider tracing an untraced series when converting records or whether previous decisions will stand. The decision to trace or not is fairly automatic, given the guidelines, and it would be desirable to re-establish series form and treatment at the point when the series is encountered for the first time. This would give the most access and would eliminate the problem of differing past institutional practices. Having

decided whether to trace the series, its form will be established like that of any uniform title heading or author/uniform title heading. The authority records for these tracings must be established and this will require the attention of the cataloger. Luckily, each series must be established only once and its form will then be available to all.

I believe that it is vital that certain aspects of the record be under authority control and in the latest authoritative form, while other aspects of the same record can be left in a non-standard form. This is evident from my suggestions that subject headings are not mandatory components of retrospective records. However, there is a certain level below which we cannot go and expect to offer useful, consistent access to these materials. I will be interested in the conclusions reached by this group of librarians with varied backgrounds and interests.

1RECON Report, p.41.

[2]Carter, Ruth. Data Conversion (White Plains, N.Y.: Knowledge Industry Publications, 1983).

DISCUSSION

The paper elicited the immediate suggestion that it would be useful and possible to create series authority records for the bulk of the series entries needed for the conversion project prior to beginning the conversion of bibliographic records. To date series authority records have not been included in the Name Authority Cooperative Project coordinated by the Library of Congress, so the LC Name Authority File does not include a high proportion

of the needed series records and those that are included are limited to the series LC has cataloged since the beginning of the machine-readable authority file. The cooperative building of a series authority file prior to beginning large-scale retrospective conversion of music records was considered a useful strategy for music RECON.

In response to a query about the possibility of doing post-conversion machine upgrades of the pre-AACR2 form of series, the speaker emphasized her position that records should be converted as they were expected to stand without expectations of cleaning them up at some later time. The OCLC representative indicated that the form of series entry is not the thorniest issue; it is the change in the choice of entry. OCLC's retrospective conversion staff finds that series that would have been name/title series entries under the old cataloging rules are now series title entries. OCLC handles the problem by transcribing the series as it is on the card, MARC tagging it as a 490 field, and then inputting the appropriate AACR2 form in a MARC 8XX field so that the access point is consistent with an AACR2 file. One of the participants currently involved in a conversion project indicated that it does not take much time for a cataloger to review cards prior to input, so it would be possible to do the kind of editing done at OCLC and convert the record in its final form as Ms. Garland had advocated in her paper.

CHAPTER 4

Position Paper No. 3:
Uniquely Musical Access Points (Coded)
Arsen Ralph Papakhian

This paper presents recommended requirements for coded access points in the creation of machine-readable bibliographic records corresponding to previously existing catalog records. The requirements are essentially those appearing in the National Level Bibliographic Record--Music, Full level: complete (NLBR--M). These recommendations are offered with the following assumptions and observations in mind:

1. Standards for conversion should result in national level records that are fully transferable, compatible, and usable in any existing MARC-based system.

2. Full level, complete records (as opposed to less than full records) will retain their utility as existing systems are enhanced or as new systems are developed.

3. By definition, retrospective conversion of cataloging refers to:

a) creating a machine-readable record when none exists from data appearing on a catalog card without examination of the item represented,

b) upgrading a less than full level existing machine-readable record from data appearing on a catalog card without examination of the item represented.

4. Cataloging with item in hand should conform to NLBR--Music, Full level: complete (the NLBR--M appendix specifies practices for transcribing cataloging copy with item in hand in order to create records that can be contributed to a national database).

5. The requirement "Required if available" should be redefined in the case of retrospective conversion to: "data element must be used if such information is available in the cataloging being converted."

6. Source records for conversion are "LC compatible" (that is, the source records generally conform to LC descriptive and subject cataloging practices).

7. The conversion of holdings information into machine-readable form is distinct from the conversion of cataloging data.

8. Given the fact that large research libraries apparently do not have the resources to catalog current acquisitions in a timely fashion (at full level, complete), the question can be raised, from the perspective of a national database building effort, whether retrospective conversion should have priority over increased cataloging of current acquisitions. If the object of retrospective conversion is to create national level records, extraordinary funding will have to be provided. (Of course, this observation would not follow necessarily from an institutional perspective. Local system needs will vary and may not require national level records. On the other hand, national level records will probably meet most local system needs.)

9. The "Proposed Minimum Standards for REMUS," based on NLBR--Music and OCLC Bibliographic Input Standards Level I, with enhancements, are now effectively operational with OCLC's ENHANCE Project.

The following summary and recommendations include MARC coded access points that are unique to or specially defined in the MARC Music Format. The code is followed by a brief comment explaining the requirement and the requirement itself.

CODE	REQUIREMENT
Leader Byte 6: Type of record	Mandatory

Correct coding is essential for qualifying searches by format of material and other sorting functions. Some vendors and local systems do not provide the capability for coding in other than the Books Format.

007: Physical Description Fixed Field for Sound Recordings

Elements 0-8 — Mandatory

Elements 9-12 — Optional

007: Physical Description Fixed Field for Microforms

Elements 0-12 — Mandatory

Field 007 is used for sorting and matching records. Much of the information necessary to code the field is present in traditional cataloging. The value "u" (unknown) is provided for in elements 2-12.

008 Bytes 18-19: Form of Composition Code — Mandatory

Information necessary to code is usually present in catalog records. For scores and sound recordings it is probable that at least 90 percent of subject headings are forms of compositions and/or media. In the case of large databases, indexing by code (as opposed to natural language text searches) will be more efficient. Recommendation for MARBI: expand and elaborate codes to correlate with LCSH.

008 Bytes 20-21: Format of Music Manuscript or Printed Music; Existence of Parts — Mandatory

The information will be available on existing catalog records. The code will enable indexing by format of material--an essential factor in the use of music library materials.

008 Bytes 24-29: Accompanying Matter Code Mandatory

The information will often be available on existing catalog records. The coding will provide access to a large body of information previously inaccessible.

008 Bytes 30-31: Literary Text Code for Sound Mandatory

The information is generally available on existing catalog records. The code will provide efficient indexing in large databases.

010: LC Card Number Mandatory if applicable

The LCCN will be useful in matching records. It provides for efficient searching when the number is known and is extremely useful when searching machine-readable records subsequent to searches in printed catalogs (for example in the case of interlibrary loan searching and identification).

020: ISBN Required if available

Some publishers provide ISBN numbers for music materials. The information is useful in the acquisition process. It has been required in cataloging with the advent of ISBD and should be included in machine-readable records when available.

024: Standard Recording Number — Required if available

Universal Product Codes (also included in this field) might be available when cataloging an item in hand. This information has not traditionally been provided in catalog records.

028: Publisher Number for Music — Required if available

For sound recordings, issue and/or matrix numbers have been the primary means of uniquely identifying an item. Many music libraries maintain card files arranged by such numbers for the purpose of bibliographic control and acquisition searching. The information has traditionally been included in catalog records.

For scores, publisher and plate numbers have been essential for identifying and dating materials. These numbers are essential to musicological research, particularly in the areas of 18th and 19th century music. The numbers are extremely useful in the acquisition process. The AACR2 Rule Interpretations of the Library of Congress have altered rule 5.7B19 in order to provide both types of numbers on a catalog record when available. The data has traditionally been provided in music library cataloging.

033: Capture date and place — Required if available

This coded information will enable indexing by place and date of recording--important factors in discographical and musicological research.

The information, when known, has traditionally been provided in catalog records.

041: Language Code — Mandatory if applicable

The music related subfields (particularly a, d, e, and g) will be useful in sorting and indexing. The coding may be useful as a means to limit retrieval and in combination with Field 008 Bytes 24-29.

044: Country of Producer Code (Sound Recordings) — Mandatory if applicable

The code is used in conjunction with Field 008 Bytes 15-17. It will allow the complete identification of the countries associated with the production of an item.

045: Chronological Code or Date/Time — Required if available

This code will enable the indexing or search qualification by the date of composition of an item. Obviously such a capability will expedite and enhance the retrieval of music materials for research. It may be one of the most significant features of the MARC Music Format when compared to traditional card catalogs. The code should be provided whenever the information is available.

047: Form of Composition Code — Required if available

The coding of media will enable efficient indexing of this essential access point in large databases. The codes, in combination with other coded and uncoded data, will provide a means to circumvent complex natural language indexes such as LCSH. The data is typically included on catalog cards. Recommendation to MARBI: expand codes to make them comprehensive.

306: Duration of Sound Recordings — Required if available

The information necessary to code this field is often available on traditional cataloging records.

DISCUSSION

Questions were raised about the usefulness of coding some of the fixed length fields listed in the paper because none of the national networks were currently indexing them. Others pointed out that the codes were needed for efficient retrieval of information needed by users and that various local and public catalog systems would have the indexing capability. If the codes were needed by the music community, then it was more efficient to add them at the point of initial conversion of the record. In general, the group seemed to feel that the lack of network indexing of the music coded fields was an indication of the low priority accorded the bibliographic control of music materials.

Another supporter of the coded fields indicated that the indexing of the fields would make a certain percentage of the subject headings for music and sound recordings unnecessary, thus obviating some of the problems posed by subject authority work. An example is the configuration of MARC fields 043, 045, 047, and 048, which are nearly impossible to index in an efficient way. However, no one doubts that the information coded in these fields is critical and, if the fields are coded and indexed, in many cases the corresponding subject heading would be redundant. The consensus seemed to be that the fields should be coded whenever possible so that the information could be used in the future. Hope was expressed that as system capabilities were developed and machine processing costs dropped, the codes could and would be used for retrieval. It was considered likely that the codes would be used as "qualifiers," that is, to limit searches once an initial search had been done.

CHAPTER 5

Position Paper No. 4:
What Can be Accomplished at the Terminal?
Connie Field

We would all like nothing better than to see a hundred thousand or so newly converted, full MARC, AACR2-upgraded records added to our online files. Full MARC is simply better than minimal level MARC or some variation thereof, offering as it does more information about a work and thus more retrieval possibilities for the future. We would also have to say that AACR2 description is better, or certainly more desirable, than pre-AACR2 description, if only because it is the standard we presently follow, and we like consistency. Unfortunately, the mission we have before us does not lend itself to the most ideal standards, because the circumstances of retrospective conversion are not ideal. The simple fact is that money and time do not allow us the luxury--or the dubious pleasure--of inspecting every physical item that we convert, and that is what application of full MARC and AACR2 standards would demand. The choices we do ultimately make in this planning phase must be realistic ones, guided by a sense of determination that whatever production goals we set must be met.

How can we go about establishing the standards we want? What can we use as guidelines? The National Level Bibliographic Record offers two sets of standards, full and minimal, and one might argue that we should simply select one of them and follow it consistently. However, the NLBR guidelines

themselves state that they are "limited to cataloging 'with item in hand'," and that specifications for retrospective conversion are considered out of scope. Another guideline we might consult is the recently approved Statement of Underlying Principles for the USMARC Formats:

> The USMARC Formats include a large number of data elements to meet the needs of a wide variety of users. While all elements may be used in any record for which they are valid and relevant, only the following elements must be present in every MARC record: a Leader, a directory entry for each variable field, and a control number (field 001). In addition, ...bibliographic records must include some identifying information--most commonly, a title (field 245$a). Agencies sharing records and individual institutions may impose further requirements....1

This statement suggests a great amount of flexibility in the way and the extent to which the MARC format can be used. The MARC Format, to paraphrase from a set of recent MARBI minutes, is simply a universe of possibilities, not a rulebook. Given the cooperative nature of the proposed project, the potential impact nationally, and its focus on a specific subject area, we are in a position, I think, to define our own universe as we believe it best serves our users.

The standards that I have recommended below cover only two broad areas: the pre-100 MARC fields, and the area of description, since name, series, and subject access points are covered in other papers. My recommendations are based on two main considerations: first, whether the code could be applied based on information on the printed card, and second, whether the potential usefulness of the information is sufficient to warrant the time necessary for full and consistent application, given the pressure of time and limited money. Following the chart are specific comments on those fields that might be more controversial. The area of description will be covered next.

	Recommendation	NLBR--Minimal
Leader		
Type of record	Code	M
Bibliographic level	Code	M
Encoding level	Code	M
Descriptive cataloging form	Code	M
007	Code	MA
008		
Type of publication date	Code	O
Date 1	Code	O
Date 2	Code	O
Country of publication	Code	O
Form of composition	Do not use	O
Format of score	Code	M
Existence of parts	Code	M
Intellectual level	Do not use	O
Form of reproduction	Do not use	O
Accompanying matter	Do not use	O
Literary text	Do not use	O
Main entry in body	Do not use	O
Language	Code	M
Modified record	Code	O
Cataloging source	Code	M
010 LC card no.	Code	MA
011 Linking LC card no.	Code	NU
020 ISBN	Code	R
024 ISRN	Code	NU
028 Publisher no.	Code	MA
033 Capture date and place	Code	O

039	Level of bibliographic content and coding	Code	M
040	Cataloging source	Code	M
041	Language	Do not use	O
043	Geographic area code	Do not use	O
045	Chronological code	Do not use	O
047	Form of composition	Do not use	O
048	Number of instruments	Do not use	O
050	LC call no.	Code	MA
052	Geographic classification	Do not use	O
090	Local call no. (LC)	Code	O
099	Local call no. (Dewey)	Code	O
306	Duration	Do not use	R

For the Encoding level, code 1 (no physical inspection) will normally be used except in those few cases when the physical item must be consulted. Coding for Descriptive cataloging form will present difficulties, since it is not always easy to distinguish between ISBD and AACR2 cataloging. Usually, the presence of an "and" in the collation, the lack of a number preceding the word "score," the location of the plate number, or the presence of "i.e." preceding a spelled out numeral in the title statement will identify the cataloging as ISBD; but these clues are not always present.

This need to evaluate the data in order to determine an appropriate code raises a very basic and important issue--that of staffing. "What can be accomplished at the terminal" will depend largely on who is at the terminal, that is, the sophistication of knowledge of that person. Assignment of codes and transcription of descriptive data will often involve a certain amount of "interpretation at the keyboard" that make it more than simply a rote task. I believe our standards must be established under the premise that professional catalogers at participating institutions will not suddenly drop their present workload and devote their energies to RECON. More likely, a team of

nonprofessionals with music background, under the supervision of professionals, will assume the major burden of the conversion. My recommended standards reflect this assumption.

Although Ralph Papakhian's paper has already covered the uniquely musical access points, I have included them also, perhaps with the definite expectation of some difference of opinion and the anticipation of useful argument. In two cases, Form of composition and Number of instruments, I have opted for exclusion for these reasons: first, their very survival is in question at present; second, they require significant time to assign, especially the latter, where instrumental ensembles or multiple instrumentation are concerned; and third, there appears to be serious doubt whether online systems will ever index the fields. I believe our chief emphasis in this project must be on the best bibliographic access we can provide, not peripheral information supplied by catalogers.

The standard for Form of reproduction will have to be changed if microforms are included in the project. My recommendation to exclude Accompanying matter is based on the relative unimportance of the field for future retrieval (how many discographies and thematic indexes really exist in scores and sound recordings anyway?) and the fact that older cataloging is not as generous with notes concerning such material as current cataloging. The Literary text code rarely applies to musical sound recordings. The Modified record code could be useful for conveying information about the romanization or shortening of a record, or the removal of dashed-on entries. LC card numbers will not always appear on printed cards representing LC cataloging,

since libraries did not always have equipment to photocopy cards and retyped cards were the norm. These will often have to be labelled non-LC cataloging if the source cannot be determined. Excluding Capture date and place may be opposed if jazz recordings are included. Accurate coding of the Language (041) field would probably require undesirable research, due to the problems caused by rule changes for language of uniform title and by the frequent lack of explicit notes indicating the original language; furthermore, I think we could agree that language of accompanying matter such as program notes is less than essential. Local call numbers are important not only for interlibrary loan use but also as an aid to catalogers in selecting a classification. It should be noted, however, that not all systems utilize the bibliographic record for holdings. The NOTIS system at Northwestern, for example, has a separate, linked holdings record for each bibliographic record. Programming will be needed to manipulate this data so that it will display in all systems. It is unfortunate that the MARC Holdings Format is not in standard use yet, since the sharing of copy holdings and complex volume holdings information would be desirable.

Finally, the 306 field may indeed offer one of the best indications of a conductor's style, and be of assistance in radio programming, but consistent application would mean the frequent coding of multiple durations on one disc, which would require an unjustifiable amount of time. NLBR's standard of "R," incidentally, seems oddly out of line.

With regard to description, I believe that, again, we must make the assumption that professional catalogers will not be transcribing the data and,

consequently, we must as a general rule accept the printed card "as is." An argument could be made for leaving the data itself intact but supplying ISBD punctuation. Record sharing might be easier and foreign language records made more intelligible. The result of such an attempt would be a lot of records that are ISBD in punctuation only, while the content would fall well short of ISBD standards. How would one code the Descriptive cataloging form?

Of course, many of the records we convert will already be in ISBD or, rather, in one of several versions of ISBD. Unfortunately, proper content designation for these records will not be as simple and straightforward as it might at first seem. Between 1974, when LC began cataloging music under the provisions of ISBD(M) as incorporated in revised Chapter 6 of AACR, and 1978, statements of medium, opus, and key were not treated as title proper information unless typography indicated they should be. Thus, we will see:

Concerto : $bno. 1 : for piano OR

Concerto, no. 1 : $bfor piano

depending on the title page. Should we "correct" the punctuation to bring it into harmony with AACR2? Certainly, online indexes that display only the $a subfield will not be well served by a title proper consisting merely of "concerto." But, to avoid significant expenditure of time for such modification, I believe we should retain the existing punctuation but tag the data so that it reflects our present concept of title proper under AACR2. Thus, in both cases the entire title would be tagged as subfield $a.

The edition area causes similar problems. In 1978 the decision was made to include words like "score," "full score," and "parts" in the edition

statement. With the subsequent creation of a musical presentation area for such information, how should we code older records? Again, I think the content designation should reflect AACR2 standards whenever possible. Likewise, if "Klavierauszug" is found as an edition statement, it should be tagged as part of the author statement, in line with AACR2. Pre-ISBD records will pose their own problems in terms of tagging. A non-collective title statement with individual titles separated by periods may appear to be a title proper with other title information. Statements like "Text taken from the Chester mystery plays" may be interpreted as other title information rather than author. Careful training and detailed written guidelines will be needed to achieve consistency.

There is neither time nor space to touch on many other stumbling blocks that will be encountered in description, such as transliteration of Cyrillic, problems in assigning correct tags to the various parts of foreign language records (is "Obra primera" an edition statement or other title information?), and so on. We will also need to establish clear guidelines regarding local notes--whether to leave in or take out--and deal with the problems of modification of LC cataloging to suit a library's own needs (addition of printing dates, addition of "and parts" to the collation, and removal of "microgroove," for instance). Since, realistically, we cannot go back to the original entry in the NUC, we are probably obliged to convert the card as it stands, relying on the Cataloging source field to indicate that a modification has been made.

Naturally there will be times when the shelflist card cannot be utilized, when the cataloger took such drastic shortcuts that the bibliographic data is barely sufficient to identify the publication (" ...3rd concerto...Paris, 1919") or when the cataloging quality is so clearly bad that the library chooses not to suffer the embarrassment.

In summary, while it may be possible to code nearly every pre-100 field from the printed card, such full standards would be difficult to apply consistently without frequent physical inspection or consultation of reference sources. Default values can be supplied in many cases, but the few seconds it takes to verify mentally that a given value is correct must be multiplied hundreds and thousands of times. I think we must be selective if we are to see the project to completion. If we concentrate our efforts on providing the fullest and most accurate bibliographic access possible, I think we will be serving our users in the best and most important way.

1Minutes of MARBI meetings, ALA Midwinter Meeting, January 7-9, 1984.

DISCUSSION

Questions of how to deal with "local" information were raised as part of the discussion of Position Paper No. 4. Some members of the group were interested in including associated holdings information in the conversion of the bibliographic record, and all agreed that the holdings information was useful for sharing resources. The general RECON meeting had concluded that holdings information could not be part of its recommended program and that the

goal of the program was the conversion of bibliographic data that could be forwarded to LC for distribution. Further discussion by the group resulted in agreement that the primary goal was the conversion of bibliographic data; holdings information would have to come later.

Some libraries add the contents of sound recordings or "analytics" to catalog records, and the question of including this kind of local information in the converted record was also raised. The consensus was that although analytics could not be required in a converted record, libraries would be free to convert as full a record as was available.

CHAPTER 6

Position Paper No. 5: Post-Input Authority Work for Retrospective Conversion of Bibliographic Items for Music: What are the Possibilities?

Ed Glazier

INTRODUCTION

It seems obvious that the least expensive methodology for conversion of bibliographic records to machine-readable form is simply to take existing catalog records, tag them in accordance with the MARC formats, and input the results into an online system. Indeed, if the source data for conversion consists of manual records containing all necessary local data, much of this conversion can even be done directly at terminals without the intervening step of preparing some sort of tagged worksheet. Trained catalogers and paraprofessionals can attain a high degree of facility at this sort of task.

While the input of existing records without modification undoubtedly lowers costs directly attributable to retrospective conversion, it is more difficult to quantify the effects that such a decision will have upon subsequent searching, retrieval, and sharing of bibliographic records. The resulting records will obviously reflect whatever cataloging rules were in force at the time the manual records were created, both for description and for choice and form of access points. In a world of unlimited time and resources, all records undergoing retrospective conversion would be

recataloged to follow AACR2 rules, in order to be fully integrated with machine-readable records created since 1981. Since none of us happens to be living in that utopia, decisions must be made about whether and how to achieve authoritative data in machine-readable records that have been created from pre-AACR2 records.

For the sake of simplicity and pragmatism, let us assume right from the start that bibliographic description from older records will be transcribed exactly as it is in order to avoid recataloging every item. Note that some selective decisions may be made that will require certain elements of older descriptions to be modernized, such as inputting issue or matrix numbers in 028 fields instead of merely transcribing them as part of the imprint as they were in pre-AACR2 catalog records for sound recordings.

AUTHORITY WORK AND AUTHORITY CONTROL: WHAT IS THE DIFFERENCE?

The expressions "authority work" and "authority control" are often used fairly loosely as being relatively synonymous. There are actually important differences. Doing "authority work" implies all of the cataloger tasks so familiar in the catalog departments of our major research libraries. These tasks include determining the heading to be used as a name or name/title access point, creating an authority record for the authorized form, adding cross references for unauthorized forms, adding "see also" references for related headings, and finally, using the form just established in a catalog record.

"Authority control" requires an authority file of established headings. Headings used in bibliographic records are matched against headings in the authority file and linked in such a way that a change in an authority file heading will either trigger a notification that a bibliographic heading already used has changed or may actually cause all occurrences of that heading to be changed to the new form. The authority files used for authority control may be created by detailed authority work as outlined above, or may simply be created by taking headings actually used in bibliographic records and using these headings as the sources for authority records. In this latter case, the forms used are not necessarily correct according to any set of rules (including the possibility of misspelling) but there is an exact correspondence between the bibliographic headings and the authority headings.

AUTHORITY WORK FOR RETROSPECTIVE INPUT: THREE OPTIONS

The question under consideration is what to do about name/title access points. The major problem with authority work for retrospective conversion of music materials stems from the same source as it does for other materials: the adoption of AACR2 by the Library of Congress and the American library community in 1981. The change from AACR1 to AACR2 affected the forms of names used as entries, but also affected the construction of uniform titles. Earlier presentations should have made it clear that more than other types of materials, the cataloging of music scores and sound recordings often requires the use of uniform titles. What choices do we have for authority work for the bibliographic records created through any sort of retrospective conversion project?

1. NO AUTHORITY WORK AT ALL. INPUT RECORDS AS FOUND.

PRO:

-The cost of RECON can be fairly easily predicted.

-Training of staff can be simplified if little is required beyond the ability to apply MARC tags to the content of a catalog card.

-Once a record is converted it is finished. No recataloging is necessary. There are no costs for authority work or maintaining of records that might otherwise need to have headings changed.

CON:

-Records for older items will often have different forms of name and/or uniform titles from items whose records were input post-1981. (Note that the date of publication is not necessarily significant for post-1981 items, since, presumably, all records created after that date follow AACR2, regardless of imprint date of the materials.)

-Inconsistency in names and uniform titles will require comprehensive and knowledgable searching to retrieve all relevant items and to distinguish between similar items.

-Input of older forms of heading when AACR2 forms exist is a violation of some network standards, even for retrospective conversion.

2. DO AUTHORITY WORK AT THE TIME OF INPUT

PRO:

-RECON records and post-1981 records will be consistent.

-Additions to authority files for retrospective items will help current cataloging as well.

-Bibliographic records will have authoritative headings at the time the records are ready for distribution/sharing.

CON:

-The cost of authority work can be as much as 50 percent of original cataloging cost. There is no reason to suppose that the cost for items already cataloged will be significantly less than doing the same authority work for new cataloging.

-Each heading in each record for which RECON is done would have to be checked against existing authority files. The headings would have to be changed if already established. In some cases, new authority records would have to be created in addition to changing the bibliographic headings themselves.

3. POST-INPUT AUTHORITY WORK

Input records without modifications (see no. 1 above) but do some sort of individual or batch authority work after all records are input or at regular intervals during RECON projects.

PRO:

-RECON can proceed as in no. 1 above without taking time to do authority work, knowing that authoritative data will be available eventually.

Some variant of this philosophy has been adopted for current cataloging in some places. Post-input authority work is often used to meet the high priorities of getting current materials available to library patrons as soon as possible. Dorothy Gregor indicated that this was a primary reason that the UC GLADIS system uses post-input authority work. Other institutions have adopted a "no conflict" approach to post-input authority work. This approach ranges from returning to catalogers all headings that are new to a main catalog for investigations of potential authority problems to the other extreme of returning to catalogers only direct reference conflicts.

The problem with such approaches in a card catalog is that the burden of determining when there might be a conflict or when references might be needed is placed upon filers who are usually clerical workers who are neither trained nor paid for this degree of responsibility.

-Current and future plans for linking authority data and bibliographic data may provide more cost-effective solutions than are currently known or available.

CON:

-The future is still unknown and there are no guarantees that any proposals for post-input authority work can ever be implemented in a reasonable time frame.

-Until authority work is performed the same problems with comprehensive retrieval will exist.

OPTIONS FOR POST-INPUT AUTHORITY WORK

The major considerations for the rest of this discussion will be the choices that might be available for handling authority work after the initial phase of inputting records "as is" has been completed or after at least some discrete portion of inputting has been completed. It would seem that the mechanisms for authority work can be divided into three categories: user-generated authority work, authority work done by the bibliographic utilities themselves, and work contracted to outside vendors.

USER-GENERATED AUTHORITY WORK

IDENTIFYING AUTHORITY WORK NEEDED

A user has completed retrospective bibliographic input for his entire file or a portion designated in some sort of project (e.g., the works of Beethoven). He is now ready to do the necessary authority work. The first question is how to identify the records needing authority work.

Unless there is some consistent element present in all of the records, e.g., composer, etc., this seems to be a difficult problem. Perhaps the user has kept copies of all of the records that have been input.

The user must now search each heading in each record against an authority file to see if each form in the record is already correct, if it must be changed to match an existing authority record in AACR2 form, or if the heading is new to the authority file and must be established in the authority file.

GETTING AUTHORITY RECORDS CREATED AND GETTING AUTHORITY DATA INTO NAFS (NAME AUTHORITY FILE SERVICE)

When it has been determined that a new or revised authority record is needed, the user must do the necessary research to enable him to construct a valid authority record. If the user is a NACO participant using WLN or RLIN, some time in 1985 the authority record can be entered directly into an online authority file and transmitted overnight online to LC to become part of the

NAFS file. Some few institutions may be able to input authority records directly into the LC master file. Both categories of records will be redistributed online to other LSP (Linked Systems Project) participants and will be distributed on tape to MARC authority subscribers who are not participating in the LSP link. OCLC users (and non-NACO participants in WLN and RLIN?) will have to submit authority records through a NACO library and continue to send manual records to LC or just add headings to local authority files. It would be unfortunate if authority records that were created as part of a RECON project did not become part of NAFS. Once the authority records have been created, the online bibliographic records must be changed to match the authority records.

AUTHORITY WORK THROUGH THE UTILITIES

COMMON CONCERNS

The MARC formats as presently constituted do not provide for the recording of information about authority work or authority control. Only one fixed field byte, Leader 18, Descriptive cataloging form, specifically addresses cataloging rules at all. Most values of this element only address the descriptive conventions used in creating the record, basically to distinguish between ISBD punctuation in output products or displays. Code "a" of this element has been used by LC to mean both that the description is in AACR2 form and that AACR2 has been used for choice and form of access points. Existing records with "a" in Leader 18 claim to be in full AACR2 form. Records with other values in this element may have headings in AACR2 form or

in some earlier form. Except for OCLC headings with subfield w (see section below on OCLC) there is no indication at the heading level that authority work has or has not been done for a given heading. The MARC format does not provide a means for the communication of information of this kind.

LC and most institutions are dependent upon the accuracy of inputting staff to be sure that the established forms of headings are correctly input in bibliographic records. In general, there is no machine verification or validation (see section below on WLN).

The following sections discuss the facilities for authority work and authority control currently available at the major bibliographic utilities.

WLN

Of the four major North American bibliographic utilities, only WLN currently has an interactive authority control system. Every bibliographic heading has a record in the WLN authority file. In fact, the headings are not stored in the bibliographic records themselves, only in the authority file. The online bibliographic records contain only pointers to the headings in the authority file and each request to display a record causes the system to retrieve the necessary headings from the authority file and to assemble the record for display.

The current WLN authority system is not based on LC's authority files. Rather, the authority records were built from the headings in bibliographic

records. The system attempts to match incoming headings with existing authority headings. If there is no match, the system builds a skeleton authority record from the data in the bibliographic record. Name/uniform title (1XX/240) combinations in bibliographic records are represented in the authority files by composite headings. (Note: The present WLN system does not make a separate authority record for the 1XX in 1XX/240 combinations; this omission is being corrected for the new authority system.)

Changes to name headings in WLN are relatively painless: since the headings are not stored in the bibliographic records, only the authority records need to be changed. When the new LC name authority file is loaded into WLN, matching of existing authority headings with the new file will be done and pointers in bibliographic headings will point to the forms in the new file. A tape of WLN records would of necessity have all access points in the form that was present in the WLN authority file at the time the tape was produced. When the new LC name authority file is loaded, a large portion of these headings will be AACR2 forms. There would be no heading level indication on a tape that an individual heading matches the heading in an authority file or that an individual heading is or is not the AACR2 form.

OCLC

OCLC participants are required to use AACR2 for current cataloging. Users are to enter LC forms for access points, if available, or to construct an AACR2 form if no LC form is available. There is no user input into the LC

name authority file that is maintained online and no system linkage between the bibliographic records and the authority records.

For retrospective input, users are also expected to supply verified (if found in LC's name authority file) or unverified (if not found in LC) AACR2 headings. OCLC has defined a subfield ($w) to "identify name headings and uniform titles that have been changed or verified as AACR2 or AACR2-compatible forms....This subfield has been defined by OCLC and is not part of the standard LC-MARC formats."1 This subfield is permitted in each field representing an access point. As with current input, there is no verification that an individual heading actually is the AACR2 form.

OCLC's subfield w also includes values supplied by the OCLC system as part of their machine conversion done at the time of the introduction of AACR2. This conversion took LC authority records that had AACR2 forms and substituted AACR2 forms for non-AACR2 forms in bibliographic records in those cases where the non-AACR2 forms appeared as cross-references in the authority records. This conversion was done early in 1981. No similar conversion has taken place for data input after 1981, although the number of AACR2 headings in the LC authority file has increased.

If a user encounters a non-AACR2 form online, he may correct the form for his card and/or OCLC tape production but no permanent change to the database takes place unless OCLC is requested to change the heading, or unless the library has been enabled to use the new ENHANCE capability, which does

allow selected libraries to make permanent changes in OCLC Online Union Catalog records.

A tape of OCLC records could contain several types of headings. Post-1981 records for current cataloging should have Leader 18 set to "a" and all headings should be in AACR2 form. Pre-1981 records could have some access points with subfield w showing changes to AACR2 forms from the OCLC machine conversion. The same records might also have some other headings without subfield w where no AACR2 form was present in the authority file at the time of conversion. Other records may have no headings at all with subfield w. Post-1981 RECON records which have been input or ENHANCED may also have subfield w in individual heading fields to show user-verified LC AACR2 forms or user-supplied AACR2 forms. Headings with subfield w that were actually changed by the OCLC system have the greatest reliability for exactness of the form, since machine matching was done. Other headings are subject to the same possible errors both in form and typography that can appear in any user-input data.

RLIN

Users are generally required to use AACR2 for current input, although other forms including pre-AACR2 forms are allowed if the record is identified as non-standard (in an RLIN-defined record level element). In the absence of consistent authority data available online because of numerous problems with the loading of LC name authority tapes, it has been difficult to demand strict adherence to AACR2.

As in OCLC, there is currently no user input into the LC name authority file that is maintained online and no system linkage between the bibliographic records and the authority records.

With the introduction of RLIN II in fall of 1981, a provision for indicating authority control in each heading field was built into the system: this consists of a subfield 9, displayed online as a third indicator. The values of this subfield are defined to show that an individual heading is linked to a specified authority file. Absence of a value meant no authority control. However, no indication of the rules used to establish a particular heading was to be in the bibliographic record, but rather was to be in the authority record to which the bibliographic heading was linked. The authority system for which this technique was designed was never implemented, although records for one RLG member library contain a value showing "linkage" to an authority file that was loaded into the system, but never mechanically linked.

Each institution's version of a record for a given bibliographic item remains online. An update to a heading in one user's version has no effect on the headings in any other version of the record. Authority work performed for one copy of a record would have no effect on any other records in the file.

In theory, the entire RLIN database could be run against the name authority file in the way the conversion was done at OCLC. However, no serious discussion of such a project has taken place in recent years. Since each library maintains its own online records, and since several libraries

have attempted to maintain close synchronization with local card catalogs, any attempt to perform such a network conversion would probably not meet with unanimous approval, in spite of the obvious benefits to be gained from increasing the consistency of online files.

Such a conversion would be inappropriate unless done in conjunction with the installation of an interactive authority system that would allow users to link bibliographic headings to authority headings at the time of input, verifying the presence of a matching authorized heading, or constructing a skeleton record from the bibliographic data, assuming a lack of conflict with existing headings and cross references. While such a system is planned for the future, interactive validation is not a realistic possibility before 1985. Thus there is currently no way in the RLIN system to indicate at the heading level that a heading is/is not AACR2 in form or that authority work has been done.

A tape of RLIN records input by a single user could contain various types of headings. There would be no indication at the heading level that the forms of name correspond to a given authority file or to AACR2 rules. In addition, a tape consisting of the input of several users might contain more than one record for an item (since RLIN is not a master record database) and different forms representing the same name could exist in different versions of a record.

VENDORS

At ALA in Dallas, Arlene Taylor of the University of Chicago reported on her survey of authority control available from commercial vendors. Only one commercial system does authority control based on LC's authority file: Blackwell North America (B/NA). While other vendors may have authority systems that serve the needs of their customers, I will concentrate on B/NA because of an assumption that any national cooperation in RECON that involves authority work will of necessity be based on LC's name authority files.

B/NA

Authority Control Services from B/NA are essentially a set of batch matching processes that are available as an adjunct to B/NA's other technical services products. In brief, a tape of user records (usually created through a utility) is run against B/NA's copy of the LC name and subject files. Exact matches are untouched. Headings that match in normalized form but not in print form have the print form from the authority file substituted for the user form. Headings that match see references in the authority records have the authorized heading from the matching authority record substituted for the unauthorized form in the bibliographic record. Headings without matches are inspected by B/NA editors. Headings that appear to represent typographic errors in authorized headings are corrected. Headings remaining after the completion of the above steps serve as source data for skeleton authority records created in the B/NA file (and in files of authority records sent to users).

B/NA products resulting from authorities matching consist either of a COM catalog whose headings are all represented in the B/NA authority file, or a tape that has the headings consistent with the file. There is no heading level indication that a given heading corresponds to an established form or that it follows AACR2.

B/NA's "authority control" is not really control as defined above, since the bibliographic file can be guaranteed to match the authority file only just after the matching programs have been run. Changes in authority headings between file matches (matching is usually done annually) do not trigger any kind of changes to bibliographic data.

While in outline the B/NA authority system seems to be a model of its kind, there are problems. Although LC issues weekly updates to the name authority file, B/NA updates its authority files only once a year. There are some records in the LC name authority files that are still not in AACR2 form. If a user has carefully chosen an AACR2 form and that form is a cross-reference in an existing authority record, B/NA's processing will substitute the older form for the new form.

WHAT HAPPENS AFTER AUTHORITY WORK HAS BEEN DONE?

It must be noted that if authority work is done within RLIN or OCLC or by a vendor such as B/NA, heading changes in authority files will not trigger updates to previously matched user records. The only way of maintaining

heading currency would be to periodically re-match the entire user file. The fact is that authority work without authority control does not provide any assurances that the headings will remain authoritative in the future. If authority work is done within a utility, either by the user himself or by the utility (the first two choices above) the next step seems to be to send a tape of records to LC or to whomever will distribute the fruits of the cooperative efforts. The possible problems/decisions to be made about the tapes include the following:

1. How to identify the records to be shared. What characteristics do these records have in common that will allow the utilities to create tapes? Will tapes contain all records input or updated by an institution? If not, how will current cataloging be separated from retrospective cataloging? (Note that the question of pre-AACR2 records already in machine-readable form has not been specifically addressed. Whatever decisions are made, it is recommended that complete machine-readable files be considered, not just those created as part of some future RECON strategy.)

2. Will tapes contain records from a single institution or will the utilities be able to combine the records for several institutions on a single tape? The differences in record structure among the utilities cannot be ignored in the discussion of this problem. The end result may depend in part upon where the records are going, as well as where they are coming from. RLIN and OCLC have both handled tapes containing the records of a single institution, but a tape representing multiple institutions may cause some difficulties.

If one has a tape of records originating in RLIN that have had authority work done and then attempts to load this tape in OCLC, the presence of an existing OCLC record will result in the addition of only a holdings symbol for the RLIN library to the OCLC record. The presumed authoritative data on the tape will be disregarded, since only LC records "bump" existing member copy records in OCLC's Online Union Catalog. If one were adding to RLIN an OCLC tape that contained a record with holdings symbols for several institutions, RLIN file structures would require the creation of multiple records with dummy holdings structures.

3. If a tape comes to a utility, how can anyone know that authority work has been done for a given record or a given heading? The MARC format has no place to record this data. OCLC tapes include OCLC's subfield w (see above) if present in a field, but RLIN, for example, currently strips out this data when processing OCLC archive tapes. (RLIN makes a practice of not implementing non-MARC features except as needed locally.) While both RLIN and OCLC have established a means for displaying this type of data online, the OCLC and RLIN methodologies (one implemented and the other partially implemented) are different. Neither at present is anything more than a claim that authoritative sources were examined. Only the subfield w in OCLC machine-converted headings is based on actual character string matching.

4. If tapes are forwarded to LC for distribution via the MARC distribution service, what additional processing will be necessary at LC? Is

it reasonable to assume that LC will be willing to provide any processing, other than just distribution?

5. If we try to put vendor-supplied authority control into the picture, another complication is introduced. One or more institutions has done work in a utility and is now prepared to have B/NA do the authority work. Considerations 1-4 from above still apply. In addition, there is a new problem: If the authority work is done separately from the inputting, how do you get the records now with authoritative data back into the utility in which the inputting was done and also to the creator of the record?

CONCLUSIONS

The above analysis, although done in a fairly hasty and unscientific way, seems to yield the conclusion that post-input authority work for retrospective conversion raises many problems that appear insuperable within the context of existing MARC format structures and with the facilities currently available at the utilities. It is possible that doing no authority work at the time of input will still allow the option of post-input authority work when and if the utilities or outside agencies make future advances in the areas both of authority work and authority control. For such developments to be of significance in resolving these issues they must address the specific problems outlined above.

What should be remembered are the potential parallels between cooperative retrospective conversion projects being proposed now and previous

independent conversions. Decisions made at the start of some earlier projects to do conversion at the lowest possible cost often resulted in the creation of machine-readable records that were less than full, and in many cases were lacking in data useful or necessary to extend the range of the originally intended application, be it circulation, acquisitions, etc. We must consider how realistic it is that any retrospective conversion records will be upgraded at a later time, either in terms of fullness of the record or in the amount of authority work done, but we should attempt to avoid decisions that unwisely limit our future actions. Cautious project planners will take such factors into consideration.

A major difficulty in adopting any approach will be avoiding duplication of effort among institutions. Without careful planning, avoiding duplication will be especially difficult when users are inputting into different utilities. Even the sharing of authority records via the LSP link will not guarantee that individual institutions will not be working on the authority records for the same headings if no cooperative organization for retrospective conversion projects is in place.

DISCUSSION

In the ensuing discussion of Position Paper No. 5 one of the faculty representatives raised a basic question about the retrospective conversion process envisioned and the cost effectiveness of authority control. He could see the obvious utility of being able to search on a single form of a name (given that he knew the single form used in the catalog), but he wondered if

there might be something the scholarly community would lose in order to gain the ability to search on a single form of the name and, also, if gaining that capability would add to the cost of his use of the catalog. Might it be more effective to convert more records and train users to search a catalog in which multiple forms of the same name might occur? Although this question was not addressed by the group, it was recognized as raising a fundamental question about the assumptions of librarians in regard to how catalogs are used.

Because of the participation of the two faculty representatives, a question was also raised concerning the records targeted for conversion in a music project. Since the music hit rate in the bibliographic utilities was so much lower than for records in general collections, the group felt that music RECON could not be limited to records for research materials, but would also have to include records for the core music collections used by everyone working in the music field.

CHAPTER 7

DEVELOPING RECOMMENDATIONS

7.1: The Subgroups

Three subgroups were formed to address the issues raised in the position papers and to discuss the organizational questions posed by the desire to coordinate the AMLG and REMUS efforts. The subgroups met after dinner on Wednesday evening, with some discussions lasting well into the night, and again Thursday morning. Even then at least one of the subgroups did not make it through the agenda. The three subgroups were composed of the individuals listed below:

Subgroup A

Mary Davidson, Convener
Jerry Persons, Recorder
Catherine Garland
Glenn Patton
Lenore Coral
Lawrence Gushee

Subgroup B

Richard Jones, Convener
Michael Ochs, Recorder
Arsen Papakhian
David Smith
Richard Felciano
Ed Glazier

Subgroup C

Michael Keller, Convener
Gerald Gibson, Recorder
Connie Field
Richard Smiraglia
Erlene Rickerson
Henriette Avram

Lee Jones, Keith Russell and Dorothy Gregor rotated among the three subgroups to try to develop a sense of the discussion in each and to be able to make some connections in the later full group discussion.

The subgroups were charged to discuss and come up with recommendations on the following:

1. Review the recommendations from the preceding conference and decide whetner or not those recommendations could be accepted and built upon by the music RECON meeting.

2. Comment on the need for the retrospective conversion of music bibliographic records.

3. Recommend ways in which coordination could be effected between AMLG and REMUS.

4. Make recommendations on a RECON standard for music. RECON methodology should be made part of the standards discussion. In addition to the background provided in the position papers, the subgroups had as a discussion guide a "Worksheet on Standards for Retrospective Conversion." A copy of the Worksheet is provided as Appendix C.

5. Discuss the nature and scope of music projects that could be developed.

6. Try to crystallize the choices that must be made in regard to the above and track the implications of various courses of action.

Separate reports from each of the subgroups will not be included here but, instead, the perspective of the small groups will be included as part of the report of the discussion by the whole group.

7.2: Discussion by the Whole Group

In preparation for the discussion by the whole group, CLR staff had prepared a synthesis of the written recommendations reached in each of the small group discussions to use as a springboard for developing recommendations from the whole group. This section of the report will summarize the whole group discussion; Chapter 8 presents the recommendations of the meeting in final form.

1. Recommendations from the general meeting.

The recommendations from the preceding, general RECON meeting were accepted by all participants, but there was some disappointment registered that music had not been specified as a pilot project for the national program recommended by the previous group. It was pointed out, however, that the music bibliographic community was ready to proceed with some portion of their RECON work and with funding proposals, and it would not be advantageous to wait until a national organization that would cover music as one of many subject elements could be put in place. It was also felt that some of the

standards guidelines needed to be stated more specifically for music, so it would not be desirable to limit the music RECON efforts to the standards outlined in the general meeting.

2. Need for music RECON.

Although it was not likely that any of the participants would speak against the need for music RECON, CLR staff felt it would be useful to state some of the reasons why music RECON would be a good thing. Librarians and others working closely with music bibliography assume the need and the desirability of converting manual records to machine-readable form, but the assumptions and goals of retrospective conversion need to be articulated for funding agencies and other non-library groups.

One of the major points to be made that is peculiar to music RECON is that there are fewer music records in machine-readable form than in other disciplines. The fact that the MARC formats for SCORES and SOUND RECORDINGS were developed much later than those for BOOKS and SERIALS and the delays in the Library of Congress use of the music formats has meant that music lags behind in the proportion of its bibliographic records available for use in an online environment. In addition, there is no Mansell of pre-1956 imprints for music as there is for monographs and serials. The bibliographic control of the field is simply not as well developed as it is for other areas of research and scholarship.

Music is, however, an historically oriented discipline, so there is a clear need to make readily accessible both current and retrospective holdings to support research. The nation's music resources are, if anything, even more decentralized than other disciplines, so there is also a clear need to provide bibliographic access through the networks in order to share resources. As in the discussions of the need for a general RECON plan, the librarians faced with the ongoing maintenance of records and collections and with the development of online catalogs and processing and circulation systems see RECON as part of their efforts to get better housekeeping control over their collections as well as making their resources more widely available for use.

Although everyone agreed that the primary focus of a RECON effort should be converting manual records to machine-readable form, the fact that music materials fall into all the MARC formats raised questions about the scope of the effort. Should music RECON be limited to printed music? Should the focus be on scores and sound recordings? It was pointed out that much of the music corpus resided in largely uncataloged collections or, at least, in collections that were not included in general catalogs. In the end, there seemed to be no reason to limit music RECON to particular formats or time periods.

Without doubt the questions surrounding the organization that would permit the coordination of the REMUS and AMLG efforts were the most discussed and the most heatedly discussed. All agreed on the need for an umbrella

organization, but there was little agreement on what that umbrella organization should be.

As in the recommendations of the general RECON meeting, the Association of Research Libraries (ARL) was considered as a possible umbrella managing organization. ARL has the virtue of representing most of the music libraries whose records would be targeted for RECON and could provide coordination with the other music libraries following the model of the ARL Microform Project. Although ARL program work is generally not subject oriented, there is a precedent in the East Asian Program. Somehow, though, the group did not feel that ARL would be sufficiently interested in music to provide the dedication to the effort that this very committed group desired.

There was also a proposal to form the umbrella organization for music RECON from REMUS and AMLG. Some members, however, protested the way in which AMLG had been constituted. Essentially AMLG was a group of libraries who were interested in getting large-scale music RECON off the ground and the methods of selecting for membership in the group and its informal status were not regarded as appropriate for directing a national effort. Questions were raised about the participation of institutions not currently represented by REMUS or AMLG. By what standards would additional institutions be included? Although it seemed clear that neither REMUS nor AMLG would be interested in restricting participation in music RECON, it was also clear that restricting membership in the umbrella organization to the current membership of REMUS and AMLG was not acceptable to the whole group.

The Music Library Association (MLA) was also considered as a possible umbrella organization, but most of the group felt that the individual (non-institutional) membership base of MLA rendered it inappropriate as an organizational focus of a RECON effort, which would require large institutional commitments. The bibliographic utilities or a joint committee of the bibliographic utilities, particularly RLIN and OCLC, were also considered as a potential umbrella organization. In practice this would mean that the Research Libraries Group Music Program Committee and the OCLC Music Users Group would constitute the umbrella organization. However, the OCLC Music Users Group is not part of the OCLC organization and would not be able to speak for OCLC. Although the bibliographic utilities would certainly need to be part of the coordinated music RECON, it was not felt that they could provide the organizational focus that was needed.

The basic question around which the discussion floated was whether the umbrella organization should be formed from the two groups represented at the meeting or whether it should be sought from an already existing organization (e.g., ARL, the bibliographic utilities, MLA, etc.). There were also basic questions about the function of the umbrella organization. Everyone recognized the desirability of having a focus for funding and the need to have an umbrella organization that would be attractive to funding agencies. But there was no consensus on the other functions the organization might perform. Should the umbrella organization define projects? set standards? choose participants? At some point in the discussion these questions faded into the need for an organization that would represent music library interests at the national level, not just for RECON, but for other functions as well. This

would require the establishment of a permanent umbrella organization of some kind, rather than a temporary organization aimed solely at coordinating RECON work.

Recognizing that the group was "hung" on the organizational issues and that meeting time was running out, Lee Jones suggested that CLR sponsor a meeting to address only the question of an umbrella organization for music RECON. He suggested that a subset of the meeting participants come to Washington prepared to create the umbrella needed to plan and implement a music RECON project or projects. An exhausted group agreed to a recommendation that an umbrella organization for music RECON is required and should be formed by nominations or designations from the organizations represented at the meeting.

As in the preceding meeting the relationship of standards adopted for music RECON and the nature of LC's participation in the project was discussed. The group felt that inclusion of the converted records in the MARC file would be desirable, but until LC has a chance to discuss internally the projects and the standards for including RECON records as part of MARC, the mechanism for distributing RECON records cannot be specified. The group was concerned that the problems of record distribution exemplified in the CONSER project not be repeated for music RECON.

One area in which the group was determined to make a more specific recommendation than any forthcoming from the general meeting was in developing an authorized list of series headings prior to beginning the RECON of

particular records. The use of series added entries as major access points for music materials was regarded as warrant for special efforts. At present series headings are not included in LC's Name Authority Cooperative Project (NACO) so there is no current method for participating libraries to contribute series headings to the Name Authority File. The series lists in two major music bibliographies, The New Grove Dictionary of Music and Musicians and Heyer's Historical Sets, Collected Editions, and Monuments of Music, were thought to be inclusive of the majority of series headings needed for music RECON, and the group felt strongly that the headings for these series should be upgraded to AACR2 form and included in the Name Authority File for use by RECON projects. It was recommended that LC convert those headings for inclusion in the Name Authority File.

Discussions of the standards questions were nearly as fraught with divided opinion as the organizational issues, and it must be recognized that the standards discussions were at a level of specificity at which it is more difficult to reach agreement and at which participants could clearly see the impact on their own potential RECON work. For example, in the discussion about the principle of including all data on the card, some participants were unwilling to read this as excluding cards that did not meet the minimum standards. At least two of the small discussion groups, however, felt that if there were not sufficient data on the card to achieve a minimum level record, then the card should be rejected for the RECON project. This did not mean that the card would not be converted by the local library, but that it would not be eligible for a RECON project funded as part of a national music RECON program. It seemed that most could agree that records should be accepted "as

is" as long as they met a minimum standard. The thrust of the "include all the data" recommendation was that it would not be desirable to lose information that had once been included in a manual catalog record.

There was no discussion about whether or not it was desirable to use the MARC formats. The use of MARC was assumed by all.

Although it was generally agreed that AACR2 forms were preferred for access points, attempts to make the recommendation stronger than a preference were met with some resistance. Part of the group felt that AACR2 form should be required for uniform title headings as well as for series used as access points. The weaker recommendation, that AACR2 form for name and uniform title headings is preferred, rather than required, was agreed upon. However, it was also agreed that series statements that were used as access points (i.e., that are traced) must be in AACR2 form.

Part of the discussion about form of headings centered on the possibility of doing "no conflict" authority work rather than mandating that every access point be upgraded to AACR2. This raised the question of "no conflict" against which file--the national database, the local catalog, the database of the utility being used? Discussion produced agreement that any requirement that forced a library to search across multiple databases would not be feasible in large-scale projects.

All subject headings appearing on a manual catalog record should be included in the machine record. Again, there was a desire not to lose

information and access in the conversion process. Subject headings raise some of the same questions as name headings, but the group did not feel it was feasible to check every subject heading against the current edition of the Library of Congress Subject Headings (LCSH) and agreed that the subjects could be converted "as is." Many music libraries have added local subject headings to their records and these, too, should be included in the converted record, as long as they are appropriately MARC-tagged to indicate their local origin.

Listed below is a summary of the recommendations for the coded (or fixed length) fields. In general, it was felt that fill characters should be used rather than blanks if the information needed to encode the field was not included on the card. If blanks are used there may be confusion about the meaning of the blank. The group spent a good deal of time discussing the need to include the 041, 043, 044, 045, 047, and 048 fields. The debate reflected one in the wider music library community, and it was decided that the issues could not be resolved for RECON alone. Instead, the group agreed to continue coding the fields until the continuation and/or nature of their use was resolved. The Music Library Association was urged to give this debate higher priority and visibility in order to bring the matter to resolution for both RECON and current cataloging.

Group recommendations for the use of the fixed length fields are listed below. The abbreviations used are as follows:

M = Mandatory
MA = Mandatory if applicable/available
R = Required
O = Optional

MARC TAG	STATUS
Leader	M
007-Physical description	MA
008-Various fixed length codes, some peculiar to MUSIC. Use fill characters as necessary.	R
010-LC card number	MA
011-Linking LC card number	MA
020-ISBN	MA
028-Publisher's number	
For SOUND RECORDINGS	MA
For SCORES	R
03. Capture date and place	O
039-Level of bibliographic content and coding	O
040-Cataloging source	M
*041-Language	R
*043-Geographic area code	R
*044-Country of producer	O
*045-Chronological code	R
*047-Form of composition	R
*048-Number of instruments or voices	R
050-LC call number	MA
052-Geographic classification code	O
082-Dewey decimal classification	MA
09X-Local call numbers	R
306-Duration	R

*Requirements for these fields are tentative until their use is resolved for current cataloging as well as retrospective conversion.

CHAPTER 8

SUMMARY OF RECOMMENDATIONS

Immediately following a three-day conference on retrospective conversion (RECON) focused on the needs of research libraries, a group of twenty-one individuals met at the same conference site, the Spring Hill Conference Center, Wayzata, Minnesota, to plan the integration and coordination of RECON activities within the context of the music library community. All of the major music library societies and professional groups were represented, as were the music faculty communities of composition and musicology. The recommendations of the preceding meeting formed the immediate background against which all subsequent discussions took place.

It was hoped that the recommendations of the general meeting would provide a framework for developing a coordinated music RECON effort out of at least two different efforts. The two groups, REMUS, a Committee of the OCLC Music Users Group, and the Associated Music Libraries Group (AMLG), demonstrated a willingness to find a way to work together toward a joint RECON program for music materials.

This spirit of mutual cooperation pervaded the discussions and did much to create the set of recommendations that follow. The recommendations themselves were the result of five discussion papers, animated group

discussion, and lengthy debates in smaller discussion groups. Each of the discussion groups dealt with identical agendas and the resulting recommendations were similar.

RECOMMENDATION #1

The recommendations of the research library RECON meeting, in very rough form, were the background for the entire set of discussions by the music group. Six of the music meeting participants were also participants in the general session, so it was not difficult to carry over the sense of the preceding meeting. After a modest amount of discussion, it was agreed unanimously that the recommendations of the general RECON conference were acceptable and useful in the deliberations of the music library community.

Some would have liked the music effort to be viewed as a pilot of the general RECON recommendations, but it was realized that the music community was faced with slightly different conditions than the general research library community. The difference is the fact that relatively little RECON has gone on in music, so there is not a large accumulation of RECON records upon which RECON projects in music can build. Hence, music libraries, using their own resources, will have to deal with the remaining heavily used, core collection records with which other disciplines have already dealt.

RECOMMENDATION #2

A program for retrospective conversion of bibliographic records of music libraries would be a rational investment on behalf of the music community of artists, students, and scholars.

The question of the usefulness of a RECON project focused on music materials was considered within the broader context of the needs of music libraries. Given the pressing demands of existing and developing online services, ranging from circulation systems to online catalogs and integrated systems, any delay in converting large numbers of music records would significantly impair music library participation in automated systems.

RECOMMENDATION #3

In order to plan and carry out a coordinated RECON effort for music, an umbrella organization including REMUS, AMLG, the International Association of Music Libraries (U.S. Branch), the Music Library Association, the Association of Recorded Sound Collections' Associated Audio Archives Project, the Library of Congress, and the three shared cataloging services should be formed.

It was clear that the two organizations presently interested in music RECON did not represent all parties involved in the issue. An impassioned debate resulted in the above recommendation. As soon as these detailed summaries are completed, a meeting of representatives will be called by CLR.

CLR's only role is as convener and moderator of the discussion. The participants will be responsible for creating some mechanism for planning and implementing a music RECON project. The intent is to have sufficient program detail specified so that support can be sought from the next round of HEA Title II-C proposals, which are due by November 1, 1984.

RECOMMENDATION #4

The program emphasis should be on the conversion of manual records of research materials in music collections. Its character should be similar to the CONSER project.

All agreed that there are two kinds of materials in most music collections: research materials and core materials for the support of undergraduate instruction. As far as RECON is concerned, individual institutions should accept the responsibility of converting records of core materials to machine-readable form. Any program support that might be forthcoming should be focused on converting records for those materials essential to music research.

RECOMMENDATION #5

In order to be effective, the music RECON projects must adhere to a common set of standards. Only in this way can the resulting records be shared among many institutions and only through sharing will duplication of effort be reduced.

A guiding principle of the music RECON projects should be that the fullest possible record should be converted, and that it must meet at least the minimum standards set forth below. Work already done should be retained if it has value for subsequent users of the record. Descriptive information should be transcribed as is without any effort to upgrade to the latest AACR2 rules. The standards recommended for the music RECON projects include the following:

1. The use of MARC for encoding and exchange of data is assumed.

2. AACR2 is preferred for name headings and for uniform titles. (Note: Some participants feel that AACR2 form for uniform titles should be mandatory.) Choice of entry can remain the same as that of the source record.

3. Subject headings should be included if present (no verification required); local subject headings should be included, if present, and appropriately tagged.

4. Authority work including the creation of a series authority record is required if a series entry is to be used as a controlled access point. (See also Recommendation #6.)

These standards are slightly more stringent than those adopted by the general RECON meeting. While these standards describe the minimally acceptable record, more complete, authenticated records are encouraged.

RECOMMENDATION #6

Two reference tools contain widely recognized lists of major music series titles. These tools are:

Charles, Sydney Robinson, "Editions, historical," vol. 5, pp. 848-869, in: The New Grove dictionary of music and musicians. Edited by Stanley Sadie. London, Macmillan, and Washington, D.C., Grove's Dictionaries of Music, 1980.

Heyer, Anna Harriet, comp. Historical sets, collected editions, and monuments of music: a guide to their contents. 3d ed., Chicago, American Library Association, 1980.

The Library of Congress should be responsible for converting these series titles to machine-readable form as a special project for inclusion in the LC Name Authority File.

Because of the nature of music bibliographic records, there are many series entries required. A special effort to establish in machine-readable form the authoritative forms of these important series would be a great service to the music community. If the project were started soon, it would

have a major beneficial impact on the proposed RECON projects focused on music materials.

RECOMMENDATION #7

The access points in the MARC music format of great importance to the music community were identified with proposed levels of coding.

These specific coding recommendations are covered in the body of the meeting report.

After two days of intensive discussions, impassioned pleas, and friendly camaraderie, the above recommendations came forth with surprising unanimity. The conferees departed the Spring Hill Conference Center with a sense of purpose. Once the "umbrella" group has an opportunity to meet and to organize itself for action, progress will be evident to outside observers. It is certain that the music community wants to begin its RECON program before the larger research library community has a chance to put its program in place.

APPENDICES

APPENDIX A

RETROSPECTIVE CONVERSION OF MUSIC MATERIALS MEETING

July 18-19, 1984
Spring Hill Center
Wayzata, Minnesota

Wednesday, July 18

2:00-2:30 pm	Introductory remarks (L. Jones, R. Jones, M. Keller)
2:30-5:00 pm	Position Papers 1 - 5 (15-20 minutes each with 10 minutes of discussion after each)
5:00-7:30 pm	Break for dinner
7:30-9:30 pm	Small discussion group sessions

Thursday, July 19

7:30-8:30 am	Buffet breakfast
9:00-11:00 am	Discussion groups continue
11:00-Noon	Reports from discussion groups
Noon-1:00 pm	Break for lunch
1:00-3:00 pm	Synthesis of discussion groups' reports; prepare agenda for action
3:00-4:00 pm	Summary and opportunity for final comments
4:00-	Dispersal of participants

APPENDIX B

LIST OF PARTICIPANTS

RETROSPECTIVE CONVERSION OF MUSIC MATERIALS MEETING

July 18-19, 1984
Spring Hill Center
Wayzata, Minnesota

From the International Association of Music Libraries, US Branch

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APPENDIX C
WORKSHEET ON STANDARDS FOR RETROSPECTIVE CONVERSION OF MUSIC MATERIALS

As an aid to making our discussions as effective as possible, we include this worksheet on standards for retrospective conversion. During the course of the discussions, participants may wish to specify in the comments column their best judgments on various elements, using the following symbols:

M = Mandatory
MA = Mandatory if applicable
R = Required if available
D = Desirable
O = Optional
NU = Not used

If a bi-level standard is a possibility, then make specifications for both levels.

Here are two different positions regarding the establishment of a standard for the retroconversion of musical materials: POSITION A--If an entry is available in the database, accept it without question, or, if none is available, add a new entry by inputting exactly what is available on the card record without changing, adding, or verifying anything. POSITION B--If a piece of information is appropriate to be used in describing a musical work, it must be supplied in a correct, verified form, no matter how much work is necessary to achieve this. It seems likely that a "reasonable" standard will occasionally favor one position or the other in relationship to individual aspects of the project, while any nationally acceptable consensus will be somewhere in between these two extremes. The following includes an outline of the two positions with reference to the specific points being discussed at this conference.

POSITION A	COMMENTS	POSITION B
I. Access Points for Names		
Enter only those persons listed as access points in the original cataloging. Do not attempt to verify the form of access points; treat uniform titles for musical works in the same fashion.		Enter the name of every person and organization associated with the musical creation regardless of his/her/its status in former cataloging. This should include, but not be limited to composers, authors/librettists, editors, arrangers, translators, and performers. A composer-uniform title added entry should be supplied for every work in an anthology (except in cases where specific collective uniform titles are appropriate). All names and uniform titles must be in the AACR2 form, established and reported to authority file managers.

POSITION A	COMMENTS	POSITION B
II. Access Points for Other Traditional Items		
Enter subject headings (whether local or national standards) and series headings in accordance with the practices and forms used in former cataloging. Do not change forms to conform to current rules.		Subject headings should be brought to current Library of Congress usage. Local subject headings should be entered in a way to show local origination. Series should be traced, according to standard practices, in AACR2 forms.
III. Encoded Access Points		
Encode only those access points for pieces of information that can be ascertained easily from the original cataloging without consulting the item or reference itself or reference works; exclude also any field that requires special knowledge or interpretation to complete.		Encode all appropriate access points even if the item in question or reference sources must be consulted to complete the field.
IV. Formatting: Field Completeness		
Description should include only those fields achievable from the catalog card, even if this results in some inconsistencies in the amount of data present or formatting. Any field used should be as complete as possible in coding, tagging, etc., without consulting the item being cataloged or other sources. Punctuate the entry by ISBD standards as much as possible from the original cataloging.		Any field which is used must be in as complete a form as is appropriate for the item in question. All description should be to ISBD standards in format and punctuation.

POSITION A	COMMENTS	POSITION B
V. Holdings/Locations		
Enter data as available on former cataloging; do not attempt to verify or expand.		Each entry should contain only verified and corrected data about holdings and locations.
VI. Classifications/Call Numbers		
Enter local call number as given.		Enter local call numbers as well as standardized classification numbers
VII. Verification/Correction of Data		
Correction or verification of keyed data can be accomplished by outside contractors and local correction projects by experts, as needed. To some extent, linked authority files may make the need for such correction and verification unnecessary.		Each entry, when entered into the database, will be verified form, according to current standards. The only need for corrections will be as current standards are changed.
VIII. Other aspects not covered above		

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Please note matters excluded. Fundamental tools or supporting systems, lists, files, etc., may be incomplete or entirely lacking from the array of resources useful in retrospective conversion. Please be prepared to specify these and, if possible, some notions of means to address the need(s).

APPENDIX D

RETROSPECTIVE CONVERSION MEETING SUMMARY

C. Lee Jones

From July 16 through 18, at the Spring Hill Conference Center in Wayzata, Minnesota, twenty-nine individuals focused their attention on a report, Issues in Retrospective Conversion, prepared by Jutta Reed-Scott, Dorothy Gregor, and Charles Payne. The underlying question during the conference was whether or not the cause of scholarship could be advanced by a carefully articulated program aimed at a coordinated approach to retrospective conversion of manual bibliographic records to machine-readable form by the research libraries of the country.

Support of scholarship and research is the fundamental objective of any retrospective conversion program. A requirement for providing that support is an openly accessible, consistent, logical national database of bibliographic records reflecting the nation's library resources. Throughout the conference it was clear that there are no national boundaries to scholarship and that, in the shorter term, the recommendations of the conference and subsequent actions taken should include all North American interests, with a longer-term goal of links to any bibliographic database in the world.

The conference discussions ranged broadly and the debate assured that a wide set of approaches and concerns was aired and became in some way a part of the recommendations that follow. While there may be alternative approaches to the problem, the following represents the sense of the group gathered at Spring Hill. Given the quality and extent of information available (in some cases more than adequate and in others frustratingly sketchy) these recommendations are the strongest statements that can be issued at this time. They suggest action on the part of the Association of Research Libraries as an organization and, less directly, on the part of every research library in the country.

RECOMMENDATION #1

A coordinated retrospective conversion (RECON) program is a viable alternative at this time.

Whatever program results from these recommendations should not be viewed as a replacement for existing local RECON efforts. The fundamental objective of such a program must be the conversion of manual records to machine-readable form and, secondarily, the upgrading of extant machine records that are less than full records.

This first recommendation flowed from the discussion of whether or not it made sense to mount such an organized effort at this time. Some argued that there was so much RECON going on that it would all be done in the next few years, despite the fact that there is no plan in place now and apparently

much duplication of effort. The specific degree of duplication was not known, but was suspected to be high. Since there are few if any RECON programs searching all shared cataloging service databases and none sharing records with all of them (OCLC, RLIN, WLN, and LC), the argument was made that duplication was bound to be high.

A major question was what was meant by RECON. In the context of this conference, RECON was limited to the original generation of machine records from "older" manual records. Thus, the nearly clerical tasks of identifying records in a database and attaching a holding symbol were deliberately excluded from any plan that might result. However, the process of identifying and upgrading to "full" record status any minimal record was considered to be an important contribution to the quality of resulting databases and so an important part of a national RECON plan.

RECOMMENDATION #2

North American research libraries are the focus of these recommendations and any program that may flow from them. However, this focus must also include the special resources of other institutions.

A principal reason for this focus is the present state of RECON in North America. Many smaller academic and public libraries have finished, embarked upon, or have near-term plans for the complete RECON of their collections. It was indicated that most collections of less than 250,000 volumes can be converted at reasonable institutional costs using the very

large databases of one of the utilities or the services of a commercial vendor. A very high percentage of the RECON work will consist of matching records from the database and so will require very little "original" RECON work. However, as collection size grows the costs of RECON become so large that it is difficult to devote sufficient institutional resources to accomplish a total RECON.

While there are few large research libraries that do not have some RECON activity either in process or scheduled, it is rare to find one intending to do all extant records because of the number of items requiring "original" RECON work and the very much higher costs associated with this process. In order to assist research libraries with their RECON loads, a coordinated program has a very good chance of distributing the amount of "original" RECON work that any one institution would have to do.

There is no doubt that many smaller non-research libraries must do original RECON for some part of their collections. It is also probably true that there is not much local pressure on them to convert their special collections unless there is an institutional commitment to convert "all" records. For the most part, these libraries will have comparatively few "unique" records to add to a national database. Consequently, in order to expand the national database of RECON records for the benefit of scholars everywhere, it makes sense to focus the national coordinated RECON program on the research library community.

RECOMMENDATION #3

The Association of Research Libraries, probably through its Bibliographic Control Committee, should assume program definition and management oversight responsibilities.

There are several models for operation of such a program within ARL, including the microform clearinghouse and certain OMS operations. ARL should also invite the participation of a representative of IRLA (Independent Research Library Association) during the program definition stages of the process. Early attention needs to be paid to the exact scope of the RECON problem.

Since most of the RECON problem that remains to be solved, at least in terms of "original" RECON, is located within research libraries, it is reasonable to suggest that ARL should take the organizational lead in defining what should be done and the strategy that should be used. These recommendations will be forwarded to ARL as soon as possible for their action.

Not all research libraries are members of ARL; several are members of IRLA. To make certain that non-ARL member research libraries are part of the program and are urged to contribute to the end result, they should be invited to participate in the program-definition deliberations of the Bibliographic Control Committee. There will be other collections that should be a part of the program that are not represented by these two organizations, and their interests should also be accounted for in the definition of the program.

While the Bibliographic Control Commitee cannot be expected to manage the program, there are models within ARL that might be used to pattern the RECON program. The microform clearinghouse effort and certain OMS operations should be examined in order to determine the best way to handle the daily management requirements of a program designed to coordinate RECON activities within the research library community.

The precise scope of the "original" RECON problem is unknown. A modest and rapidly mounted effort should be made to determine the size of the problem and some indication of how it should be approached. Are there concentrations of records that need to be converted? Is the problem tractable?

RECOMMENDATION #4

A coordinated program for RECON must capitalize fully upon other RECON record-producing activities.

There are several projects that are already under way that are creating what amount to RECON records as by-products of their activities. These include the NEH-funded newspaper project, the major microform set project, the RLG RECON project, and certain preservation projects. Each of these projects produces bibliographic records that either replace existing manual records or upgrade incomplete machine form records. It is possible to identify the groups of materials that are being dealt with in these projects

and any RECON program must do so in order to avoid or minimize duplicate record production. By recognizing the contributions expected from these on going activities, the ARL plan for coordinated RECON work will include these projects and so expand the productivity that can be expected from it.

RECOMMENDATION #5

The approach recommended is to segregate the work by subject based upon the LC classification scheme or, under certain conditions, based upon certain very strong special collections.

Two programs were identified as being useful in identifying institutional strengths based upon subjects as defined by the LC classification scheme: the National Collection Inventory Project (NCIP) and the National Shelflist Count (NSC). Since the former is still in its early stages of operation, it is more likely that the NSC will prove to be more useful in the short run despite certain limitations. While LC information is part of the NSC data, only twenty-five other libraries are included in this 1977 compilation. NSC can yield initial information on size of research collection, while NCIP will eventually yield collection quality data.

RECOMMENDATION #6

It is important that any institution choosing to participate in the coordinated RECON program must agree to produce and share records according to a set of agreed-upon standards.

Those standards are based upon the premise that the fullest possible record properly encoded is to be preferred. Specific standards that should be followed include:

1. MARC format for data encoding and exchange.

2. The National Level Bibliographic Record - Minimal Level Record standard is the least acceptable record.

3. AACR2 is preferred for access points.

4. Subject headings should be LCSH/MESH compatible.

There is no point in putting together a program for coordinated RECON unless the resulting records can be shared. Sharing records requires an agreed-upon set of standards and distribution among the databases of the large shared cataloging services and other suppliers of bibliographic records. In the end, these databases are the component parts of our objective, a logical, consistent national bibliographic database openly available to all citizens.

The use of MARC for the exchange of data is assumed.

The specification of the Minimal Level Record as the least acceptable standard is intended to specify the absolute minimum and not to specify the target against which to measure quality. In fact, if support is provided in

the context of the program for the production of RECON "original" records, little or no support should be provided for the production of minimal records. Any minimal record that is selected by another institution may force that institution to do additional work if it chooses to use only full records in its database. The object of the program is to do as many "original" RECON records as possible and do them fully once so that others may share them without undue additional work.

There is also a need to keep the costs of RECON under control. Specifying AACR2 as preferred for access points is a case in point. Should all access points and descriptions be required to be consistent with AACR2, few if any institutions could afford the time required to bring old records up to the new standard. This would amount to recataloging and not just converting from a manual to a machine record. It would be possible to convert headings by running them against an AACR2 authority file and dealing only with those that do not match.

Where subject headings are used in a RECON record they should be consistent with the two largest controlled subject heading lists, the Library of Congress Subject Headings and the National Library of Medicine's Medical Subject Headings. It was agreed that subjects will be important even for the older records, and that an effort to assure consistency with the two prime subject heading standards was required for the benefit of users.

RECOMMENDATION #7

The telecommunication protocols resulting from the Linked Systems Project should provide the enabling mechanism for the sharing of records produced on the several shared cataloging services' systems.

The linking protocols that are now in the testing phase and approaching the implementation stages are viewed as the appropriate mechanisms for making resulting and other records available to the library user community. It is realized that this is an option that will take some time to implement, but it should remain the objective of the library community.

RECOMMENDATION #8

When the Linked Systems Project is fully operational, access to records will be diametrically enhanced. However, access to all original or upgraded records resulting from a coordinated RECON program should be provided through an LC distribution mechanism. Any LC records input by another organization according to certain guidelines specified by LC could be accepted as LC MARC records, and so distributed as part of the MARC Distribution Service and maintained by the Library of Congress. The Library of Congress agreed to investigate the possibility of an LC distribution mechanism.

Participants recognized that the widest possible distribution would come from using an LC distribution mechanism. All subscribers would receive the records and there are no limits, other than financial, to those who may

subscribe. The commercial sector will thus be served as readily as the not-for-profit sector. It would be particularly desirable to have the LC cataloging records included in the MARC Distribution Service, where they would be part of a continuing maintenance program.

RECOMMENDATION #9

The ARL Bibliographic Control Committee should explore a variety of funding options for the support of a coordinated RECON program.

Individual projects should be packaged for fund-raising purposes. In addition, a strategy of assessments of research libraries should be explored. Finally, appropriate staff from Title II-C and NEH should be advised that a coordinated RECON program is being prepared.

RECON activities have received sporadic support for several years. Much of what has been done has been done with local funding in efforts to implement online circulation systems that required more or less full bibliographic records as raw material, and there is bound to be more local support of RECON in the years to come. A national coordinated strategy for retrospective conversion, whether fully/partially funded or not, would provide the context in which institutions could approach their own RECON projects, knowing that they would be making a contribution to the national RECON effort. Thus, a worst case of no extramural support for RECON still calls for a logical, coordinated RECON plan.

There are, however, many foundations that may be interested in specific pieces of the RECON problem. It would be useful, for example, to put together a package that might be interesting to the Getty Foundation in the area of art and architecture. Other foundations may be interested in other pieces of the knowledge spectrum. It would not be terribly difficult, once data were examined from the NCIP, to put together some subject assignment suggestions for a limited number of institutions, to secure their commitment to the concept, and to seek support for a special package of materials. The nature of the support should be such that each participating institution is investing in the project rather substantially. Foundations are more likely to be interested in providing matching funds than they are in supporting all the institution's costs relative to RECON. Support should be sought within these limitations.

In a more broadly based program for generating support for RECON, ARL should consider a program of assessments of research libraries in order to accumulate resources that could be used as matching funds for the RECON effort. Some institutions will be able to make cash payments to a project-specific fund. Others will not be able to do much more than to allocate a specific sum within their operating budgets as matching support for RECON. These non-cash commitments are likely to be in the form of staff and other resources and should be viewed as an acceptable alternative to cash commitments. Again, such a resource pool may attract matching attention from the foundation and federal funding communities.

Both Title II-C and NEH have funded RECON projects in a less than coordinated way over the past several years. Both agencies should be alerted to the fact that there is now an effort to produce a logical coordinated plan for RECON activities. The Title II-C deadline of November 1 is very close, but some may be able to take advantage of it if even a draft plan were to be available by October 1 or so. In any case, alerting these two programs to what is coming should allow them to capitalize upon the plan in their support of RECON proposals.

The foregoing constitute the central recommendations of the three-day conference. As one might expect, there were many other recommendations that did not receive such wide support or which had poor specific fits in the program recommended above. The most useful of these recommendations are summarized as miscellaneous recommendations.

MISCELLANEOUS RECOMMENDATIONS

Optical Character Recognition (OCR) techniques should be explored in light of some new developments in the field. Given that most of RECON is the capture of data that already exist in a variety of print formats and that there have been some interesting recent developments in OCR and the controlling software, a renewed examination of OCR technology for purposes of supporting RECON should be undertaken. The Council on Library Resources (CLR) committed itself to such an appraisal.

One of the products of the RECON program will be the conversion of records that were originally the product of LC cataloging. It was suggested that all of these records should be flagged and sent to LC by the shared cataloging services as a service to LC. LC representatives agreed to consider the usefulness to LC of this suggestion.

While the Linked Systems Project will result in operating links between the Library of Congress, the Research Libraries Group, and the Washington Library Network, it will be some time before OCLC can become a part of the technical link. Microenhancer or similar techniques using microcomputers should be developed for searching several databases in the RECON process. Since one of the objectives is to reduce duplicative effort, it makes no sense to search only one database when there is some likelihood that similar work may already have been done on one or more others. This suggestion may require more software work on the part of the target databases than they are willing to do, but there was encouragement to explore this avenue as a short-term solution to the lack of operational links among the utilities.

These recommendations form the essence of a nationally coordinated program for retrospective conversion of print form bibliographic records. It is a program that has the chance of reducing the aggregate costs of the RECON process and securing funding for making a very large dent in the inventory of records that need to be converted to machine-readable form in order to better support the work of the scholarly community.